# FINAL PHASE II ENVIRONMENTAL SITE ASSESSMENT

# CAMP SMITH MARINE FAMILY HOUSING AREA

#### Prepared for



Honolulu, Hawaii

September 2006

Prepared by



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#### **ACRONYMS AND ABBREVIATIONS**

ACM Asbestos-containing material AST Aboveground Storage Tank

ASTM American Society of Testing and Materials

bgs below ground surface

EP Environmental Professional
EAL Environmental Action Level

ESA Environmental Site Assessment

ft feet

HDOH Hawaii Department of Health

HUD United States Department of Housing and Urban Development

kg Kilograms

LBP Lead-based paint

LUST Leaking underground storage tank

m Meter

mg/kg milligram per kilogram

PCB Polychlorinated biphenyl

PE Professional Engineer

PPV Public Private Venture

REC Recognized Environmental Condition

USEPA United States Environmental Protection Agency

USGS United States Geological Survey

UST Underground storage tank

#### 1.0 SUMMARY

The purpose of this Final Phase II Environmental Site Assessment (ESA) is to present the site-specific results and recommendations from a subsurface investigation of pesticides and lead conducted at the Camp Smith Marine Family Housing Area on the island of Oahu, Hawaii. Parsons completed a Phase 1 ESA which identified potential Recognized Environmental Conditions (RECs) at the site and for which additional investigations were recommended. One of these recommendations included subsurface soil sampling for pesticides prior to planned renovation/demolition activities for new housing developments. In addition, as part of the Phase II investigations lead was analyzed in soil due to concerns over past use of lead-based paint, as described in the Phase I ESA.

The Camp Smith Marine Family Housing Area is located in the Aiea Area of O'ahu, Hawaii. The site is 5.173 acres. The site consists of 10 housing units for Marine personnel. There is no open access to the site; it is located within a secured base. The housing units are primarily single family homes with one duplex. The units were built in 1965 and 1970. The square footage of the units range from 1,268 to 1,971 square feet. The units have 3 to 5 bedrooms, and 2 to 3.5 bathrooms (Ohana, 2006).

The Public Private Venture (PPV) will be the lessee of the site and will be the owner of 10 improvements, of which 10 will be demolished, and will be replaced with 10 newly constructed units.

During the Phase II, shallow soil samples were collected from a statistically representative number of buildings that were areally distributed throughout the neighborhood. For Camp Smith, approximately 33% of the total number of buildings proposed for demolition were sampled. For each building selected for sampling, soil samples were collected from three (3) group locations:

- under the foundation ("sub-slab samples");
- along the outside perimeter of the foundation ("perimeter samples"), generally at a distance of approximately 2 feet from the foundation; and,
- in the front and/or back yards ("common area samples").

In the opinion of the Environmental Professional (EP), the findings and conclusions for the Camp Smith Marine Family Housing Area are:

- 1) As shown on Figure 4, the following compounds exceeded their respective Tier 2 EAL in at least one sample composite:
  - aldrin
  - dieldrin
- 2) No samples had more than three (3) detections of a carcinogenic compound, which is a requirement for use of the Tier 2 EAL comparison criteria.

- 3) Lead concentrations were below the Tier 2 EAL of 400 mg/kg for all samples.
- 4) Of the three buildings sampled, only one building (677 Baugh Road) had samples with pesticide concentrations which exceeded their respective Tier 2 EAL criteria.
  - The composited perimeter sample collected at 677 Baugh Road (shown on Figure 4) had a detection of 0.62 mg/kg for dieldrin at 1 ft bgs and 0.18 mg/kg for dieldrin at 2 ft bgs. These concentrations both exceed the Tier 2 EAL of 0.10 mg/kg for dieldrin. It should be noted that all three of the perimeter locations for this particular home were collected at a distance of only 6 inches from the foundation slab. Concentrations of dieldrin, as well as aldrin, in the composited sub-slab sample that was also collected at this building were also above their respective Tier 2 EALs.
- 5) With the exception of 677 Baugh Road (as described above), pesticide concentrations in all other perimeter, sub-slab, and common area samples were not above their respective Tier 2 EALs. Because the perimeter samples at 677 Baugh Road were collected at only 6-inches from the slab, pesticide impacted soils appear to be generally confined only to soils underneath the slab itself and/or within a two-foot area immediately adjacent to the slab (i.e. the distance at which most other perimeter samples were collected).
- 6) Concentrations generally attenuated with depth, as shown by the relative concentrations at 1 ft bgs and 2 ft bgs.

Based on these results and conclusions, Parsons recommends that during demolition and construction activities for the Camp Smith neighborhood that soil underneath all existing building foundations and within a two-foot distance of the foundations be managed as pesticide impacted soil according to the "Pesticide Impacted Soils Management Plan" (Parsons, 2006). It is the opinion of the EP that mitigation measures for other soil outside of these areas does not appear to be warranted.

#### 2.0 INTRODUCTION

The purpose of this Final Phase II Environmental Site Assessment (ESA) is to present the site-specific results and recommendations from a subsurface investigation of pesticides and lead conducted at the Camp Smith Marine Family Housing Area on the island of Oahu, Hawaii. Parsons completed a Phase I ESA which identified potential Recognized Environmental Conditions (RECs) at the site and for which additional investigations were recommended. One of these recommendations included subsurface soil sampling for pesticides prior to planned renovation/demolition activities for new housing developments. In addition, as part of the Phase II investigations lead was analyzed in soil due to concerns over past use of lead-based paint, as described in the Phase I ESA.

#### SPECIAL TERMS AND CONDITIONS

- The information and conclusions presented in this report are valid only for the circumstances of the site investigated as described as of the dates in this report.
- Parsons evaluated the reasonableness and completeness of available relevant information, but does not assume responsibility for the truth or accuracy of any information provided to Parsons by others or for the lack of information that is intentionally, unintentionally, or negligently withheld from Parsons by others.
- After acceptance of this report, if Parsons obtains information that it believes warrants further exploration and development, Parsons will endeavor to provide that information, but Parsons will not be liable for not doing so.

#### LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

To achieve the study objectives stated in this report, Parsons based its conclusions on the best information available during the period of the investigation and in accordance with generally-accepted environmental methodologies.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Professional judgment was exercised in gathering and evaluating the information obtained, and Parsons commits itself to the usual care, thoroughness, and competence of the engineering profession.

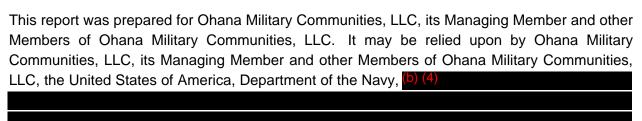
#### OTHER RECS IDENTIFIED IN PHASE 1 ESA

The following RECs were also identified in the Phase 1 ESA and Parsons recommends the following:

 Suspected presence of asbestos-containing materials in building materials — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.

- Suspected presence of lead in paint and dust Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential PCB-containing ballasts in fluorescent lighting Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential radioactive sources in smoke detectors Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential mercury-containing light switches and lamps Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential arsenic-containing canec board in building materials Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.

#### **USER RELIANCE**



, and each of

their respective officers, directors, employees, affiliates, successors, assigns, legal counsel and advisors.

### 3.0 BACKGROUND INFORMATION

#### LOCATION AND DESCRIPTION OF PROPERTY

The Camp Smith Marine Family Housing Area is located at Latitude (North) 21.393121, Longitude (West) 157.905859. The site consists of 10 housing units for Marine personnel. There is no open access to the site; it is located within a secured base.

The Public Private Venture (PPV) will be the lessee of the site and will be the owner of 10 improvements, of which 10 will be demolished, and will be replaced with 10 newly constructed units.

#### SITE AND VICINITY CHARACTERISTICS

Table 3-1 provides a description of the properties directly adjacent to the site.

Table 3-1
Adjacent Properties

Direction	Description of Adjacent Properties
North	The Camp Smith military facility continues further north and is mostly forest. In addition there are some residential properties off base across Halawa Heights Rd.
East	The eastern portion of the site consists of a small portion of the Camp Smith military facility and off base across Halawa Heights Rd. is residential housing.
South	The Camp Smith military facility continues further south and the area adjacent to the site is a hillside that is used for parking
West	The Camp Smith military facility continues further west and is mostly forest

#### DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE

The approximately 5.173-acre, 10 unit, site is primarily occupied. The site is accessible via Halawa Heights Road.

The housing units are primarily single family homes with one duplex. The units were built in 1965 and 1970. The square footage of the units range from 1,268 to 1,971 square feet. The units have 3 to 5 bedrooms, and 2 to 3.5 bathrooms (Ohana, 2006).

Vehicle access to the housing units is via asphalt-paved streets. Typical landscaping bordering the housing units includes grass and trees. The housing units are primarily single family homes with one duplex. Residential parking is along the street on the lower level of houses and provided by attached carports for the upper level houses.

The housing unit construction is primarily cinder block with wood and cement used for porches. Roofing material included asphalt shingles.

#### **GROUNDWATER AND SURFACE WATER**

Groundwater beneath Camp Smith is considered a potential drinking water resource based on its location above the Underground Injection Control (UIC) Line. There are no surface water bodies within 150 meters of the subject property.

#### LIST OF RECOGNIZED ENVIRONMENTAL CONDITIONS FROM PHASE I ESA

The following RECs were identified for the site: (1) ACM, (2) LBP, (3) PCB-containing ballasts, (4) smoke detectors, (5) mercury switches in housing units and associated structures, (6) arsenic in canec, and (7) chlordane and other pesticides, including DDT, dieldrin, and heptachlor, in soils.

### **4.0 PHASE II ESA ACTIVITIES**

#### SAMPLING STRATEGY AND METHODS

Shallow soil samples were collected from a statistically representative number of buildings that were areally distributed throughout the neighborhood (Figure 2). For Camp Smith, approximately 33% of the total number of buildings proposed for demolition were sampled. For each building selected for sampling, soil samples were collected from three (3) group locations:

- under the foundation ("sub-slab samples");
- 2) along the outside perimeter of the foundation ("perimeter samples"), generally at a distance of approximately 2 feet from the foundation; and,
  - 3) in the front and/or back yards ("common area samples").

At each single family home or duplex selected for sampling, soil samples were collected from a total of approximately seven (7) individual sampling locations ("pushes") within the above three group locations, as follows:

- 2 locations under the foundation;
- 3 locations along the outside perimeter of the foundation; and,
- 2 locations in the front and/or back yards.

At each individual sampling location or push, discrete samples were collected at two (2) depths: approximately one foot (ft) below ground surface (bgs) and approximately 2 ft bgs. After the samples were collected at each building, all of the related samples from the same group location and the same depth were composited and submitted to a fixed-base laboratory for pesticide and lead analyses. Compositing was performed at the laboratory based on instructions provided on the chain-of-custody form. As a result, each building sampled resulted in approximately 6 representative samples analyzed by the laboratory (i.e. from 3 group locations at 2 depths each). All soil samples were analyzed for pesticides and total lead by EPA methods 8081A and SW6010B, respectively.

Soil samples from the 2 group locations outside of buildings (i.e. the foundation perimeter and yards) were collected using direct-push sampling methods. Soil samples collected from inside buildings (i.e. under the foundation) were collected manually using a slide hammer and sampling tube after drilling through the bottom of the concrete foundation using hand operated electric tools.

#### **REGULATORY COMPARISON CRITERIA**

Phase II soil sampling results are compared with Tier 1 or 2 Environmental Action Levels (EALs), consistent with guidance in the Hawaii Department of Health (HDOH, 2005) "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater". EALs are conservative screening concentrations that can be used to assess the potential risks to humans

or the environment. It can be assumed that contaminants of potential concern (COPCs) do not pose a significant threat to human health or the environment when concentrations are less than EALs. However, COPC concentrations greater than EALs do not necessarily indicate unacceptable risks, but typically indicate the need for further evaluation. Under "Tier 1", site data are compared directly with HDOH generic and conservative Tier 1 EALs. However, HDOH also supports the development of project-specific or site-specific Tier 2 EALs.

Parsons developed proposed project-specific Tier 2 EALs for pesticides that were derived from HDOH human health direct exposure Tier 1 EAL values. These Tier 2 EALs are based on an alternative target cancer risk level of 1E-05 and the potential for cumulative cancer effects from exposure to multiple pesticides. The rationale and development of these proposed Tier 2 EALs are documented in "Proposed Soil Site-Specific Tier 2 Environmental Action Levels (EALs) for Use During Demolition and Construction at Navy (Phase III) and Marine (Phase II) Housing Communities on Oahu, Hawaii" and provided under separate cover (Parsons, 2006b). These Tier 2 EALs along with HDOH generic Tier 1 EALs are summarized in Table 4-1.

TABLE 4-1
TIER 1 AND 2 ENVIRONMENTAL ACTION LEVELS (EALS) FOR SOIL

	Environmental Action Level (EAL) (mg/kg)									
			Tier 2	Basis (Direct						
Chemical	Tier 1 <sup>a/</sup>	Basis b/	(Proposed)	Exposure) c/						
4,4'-DDD	2.4	Direct Exposure (cancer)	8.1	Carcinogen						
4,4'-DDE	2.4	Direct Exposure (cancer)	8.1	Carcinogen						
4,4'-DDT	1.7	Direct Exposure (cancer)	5.7	Carcinogen						
Aldrin	0.029	Direct Exposure (cancer)	0.095	Carcinogen						
BHC (Lindane)	0.098	Groundwater Protection	1.5	Carcinogen						
Chlordane	1.6	Direct Exposure (cancer)	5.4	Carcinogen						
Dieldrin	0.0052	Groundwater Protection	0.10	Carcinogen						
Endosulfan	0.018	<b>Groundwater Protection</b>	370	Non-Carcinogen						
Endrin	0.010	<b>Groundwater Protection</b>	18	Non-Carcinogen						
Heptachlor	0.11	Direct Exposure (cancer)	0.36	Carcinogen						
Heptachlor epoxide	0.053	Direct Exposure (cancer)	0.18	Carcinogen						
Methoxychlor	19	<b>Groundwater Protection</b>	310	Non-Carcinogen						
Toxaphene	0.40	Direct Exposure (cancer)	1.3	Carcinogen						

<sup>&</sup>lt;sup>a/</sup> Taken from Table A-1 of HDOH (2005), assuming potable groundwater and the nearest surface water body is >150m.

b/ The most sensitive endpoint is shown, including cancer or non-cancer toxicologic endpoints (HDOH, 2005).

c/ Tier 2 EALs based on direct human exposure (Parsons, 2006b); most sensitive endpoint (cancer or non-cancer) is shown.

#### 5.0 EVALUATION AND PRESENTATION OF RESULTS

Laboratory data packages with detailed sampling results are provided in Appendix 1. Graphical presentations summarizing the laboratory results is provided on Figure 3 (for Tier 1 EAL comparisons) and Figure 4 (for Tier 2 EAL comparisons). On these figures, concentrations are shown only for contaminants which exceeded their respective EAL criteria (Table 4-1) at that location.

Locations are identified by sample ID, for example: "0677B-S00" (see Figure 3). The initial part of the sample ID (e.g., "0677B") indicates the address of the building within the neighborhood (in this example, 677 Baugh Road). The second part of the sample ID (e.g., "S00") indicates which of the three sample groups the sample was collected from (in this example, "S00" for the composited sub-slab sample). The sample ID is then followed by the sample depth, 1 ft or 2 ft bgs. For clarity, the sample groupings are also color-coded: green for sub-slab samples, blue for perimeter samples, and red for common area samples.

### 6.0 DISCUSSION OF FINDINGS AND CONCLUSIONS

For the Camp Smith neighborhood:

- 1) As shown on Figure 4, the following compounds exceeded their respective Tier 2 EAL in at least one sample composite:
  - aldrin
  - dieldrin
- 2) No samples had more than three (3) detections of a carcinogenic compound, which is a requirement for use of the Tier 2 EAL comparison criteria.
- 3) Lead concentrations were below the Tier 2 EAL of 400 mg/kg for all samples.
- 4) Of the three buildings sampled, only one building (677 Baugh Road) had samples with pesticide concentrations which exceeded their respective Tier 2 EAL criteria. Results are shown graphically on Figure 4, where the sub-slab exceedances are shown in green and the perimeter exceedances are shown in blue.
  - The composited perimeter sample collected at 677 Baugh Road (shown on Figure 4) had a detection of 0.62 mg/kg for dieldrin at 1 ft bgs and 0.18 mg/kg for dieldrin at 2 ft bgs. These concentrations both exceed the Tier 2 EAL of 0.10 mg/kg for dieldrin. It should be noted that all three of the perimeter locations for this particular home were collected at a distance of only 6 inches from the foundation slab. Concentrations of dieldrin, as well as aldrin, in the composited sub-slab sample that was also collected at this building were also above their respective Tier 2 EALs.
- 5) With the exception of 677 Baugh Road (as described above), pesticide concentrations in all other perimeter, sub-slab, and common area samples were not above their respective Tier 2 EALs. Because the perimeter samples at 677 Baugh Road were collected at only 6-inches from the slab, pesticide impacted soils appear to be generally confined only to soils underneath the slab itself and/or within a two-foot area immediately adjacent to the slab (i.e. the distance at which most other perimeter samples were collected).
- 6) Concentrations generally attenuated with depth, as shown by the relative concentrations at 1 ft bgs and 2 ft bgs on Figure 4.

Based on these results and conclusions, Parsons recommends that during demolition and construction activities for the Camp Smith neighborhood that soil underneath all existing building foundations and within a two-foot distance of the foundations be managed as pesticide impacted soil according to the "Pesticide Impacted Soils Management Plan" (Parsons, 2006). Mitigation measures for other soil outside of these areas does not appear to be warranted.

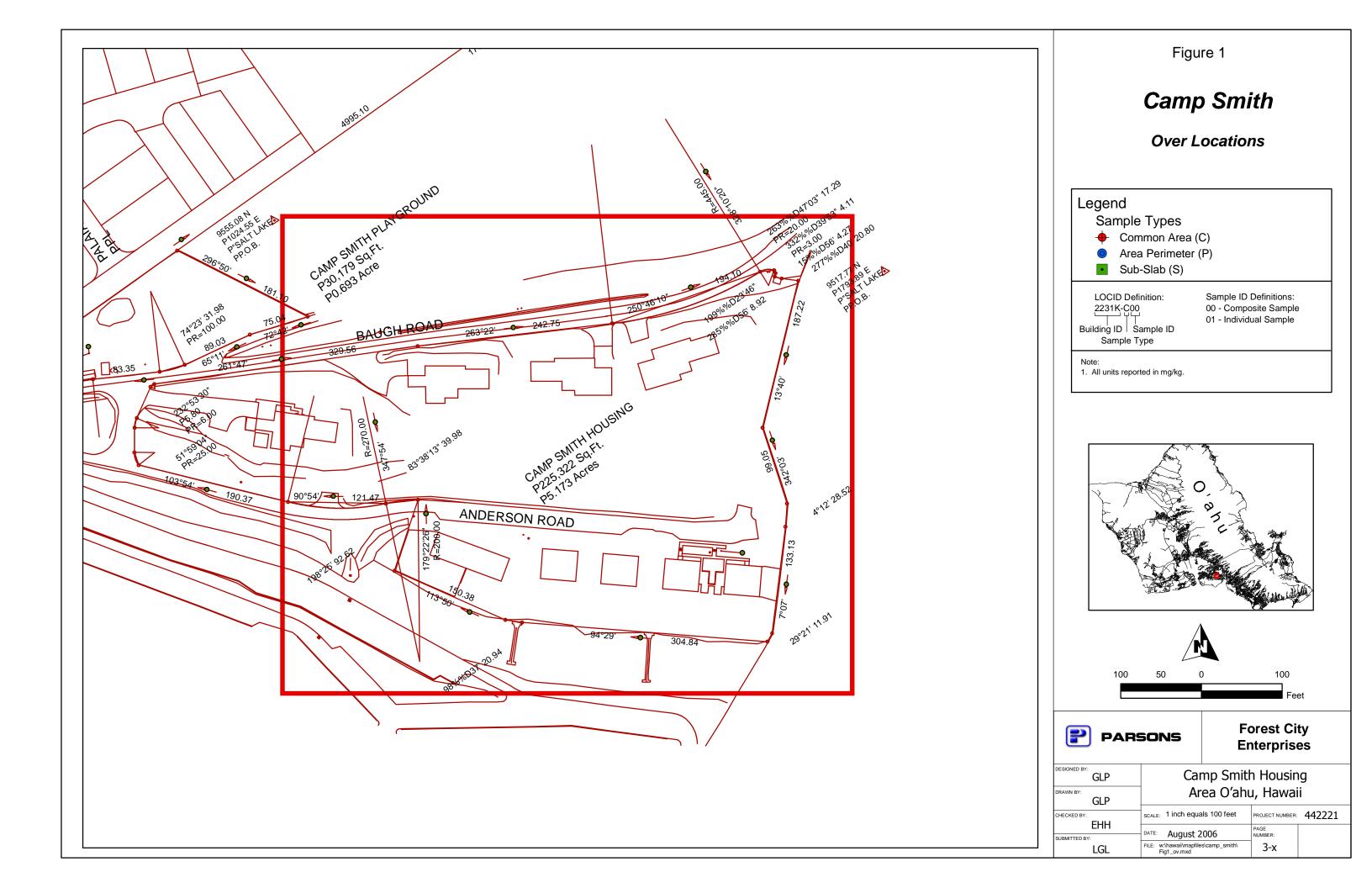
### 7.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

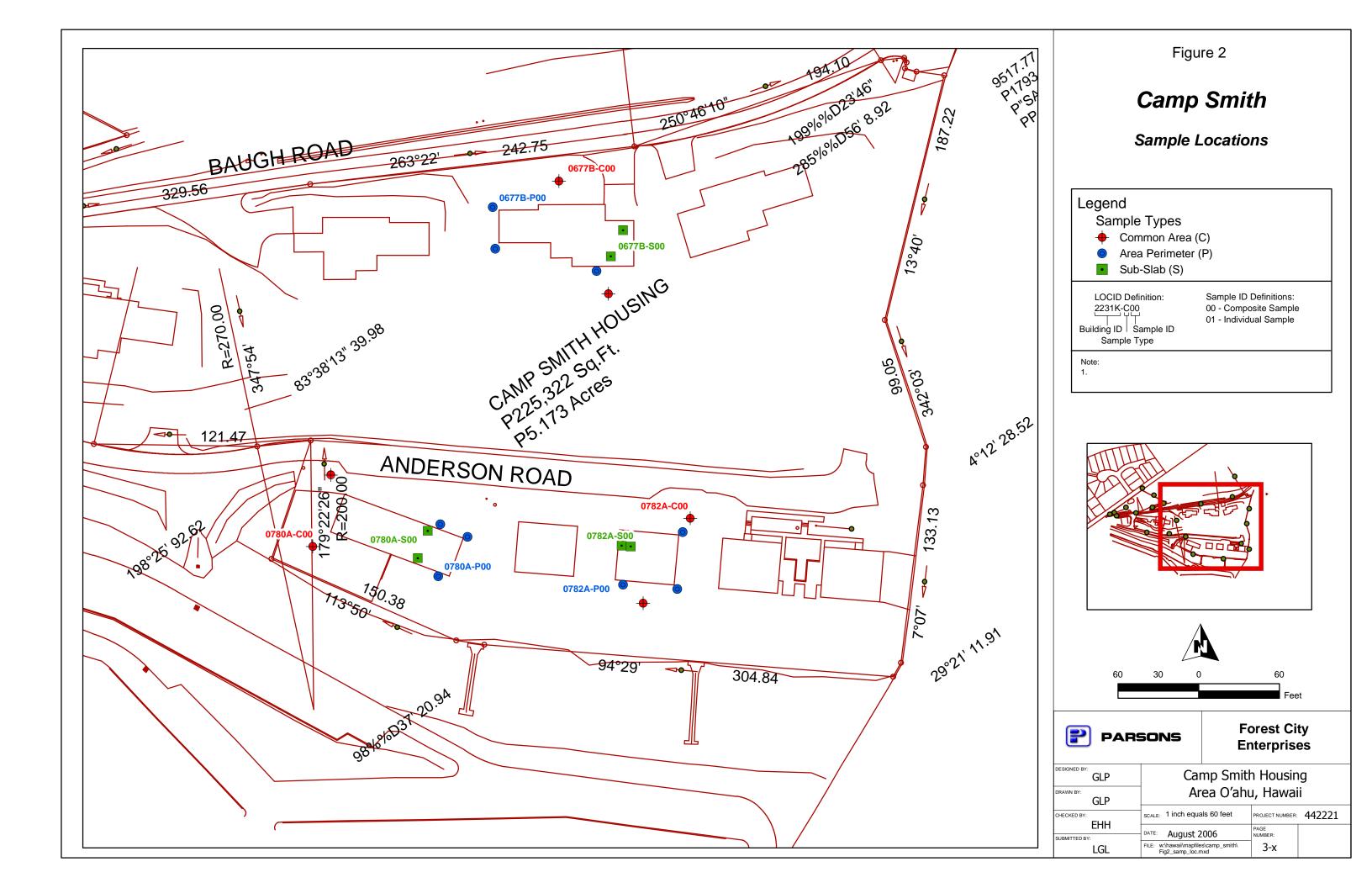
Parsons declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of Title 40, Code of Federal Regulations (CFR), Part 312 dated 1 November 2005.

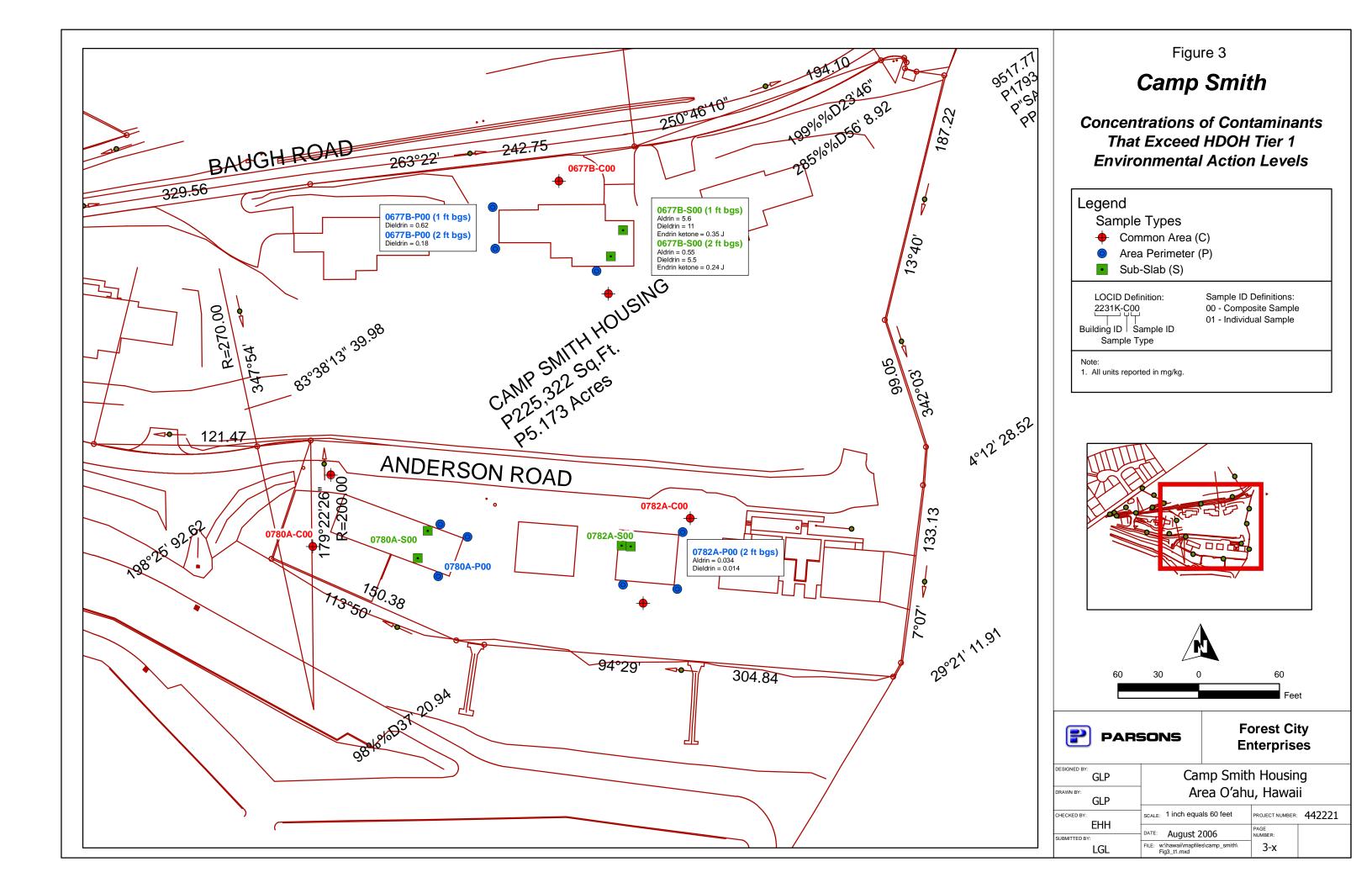
We have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR 312.

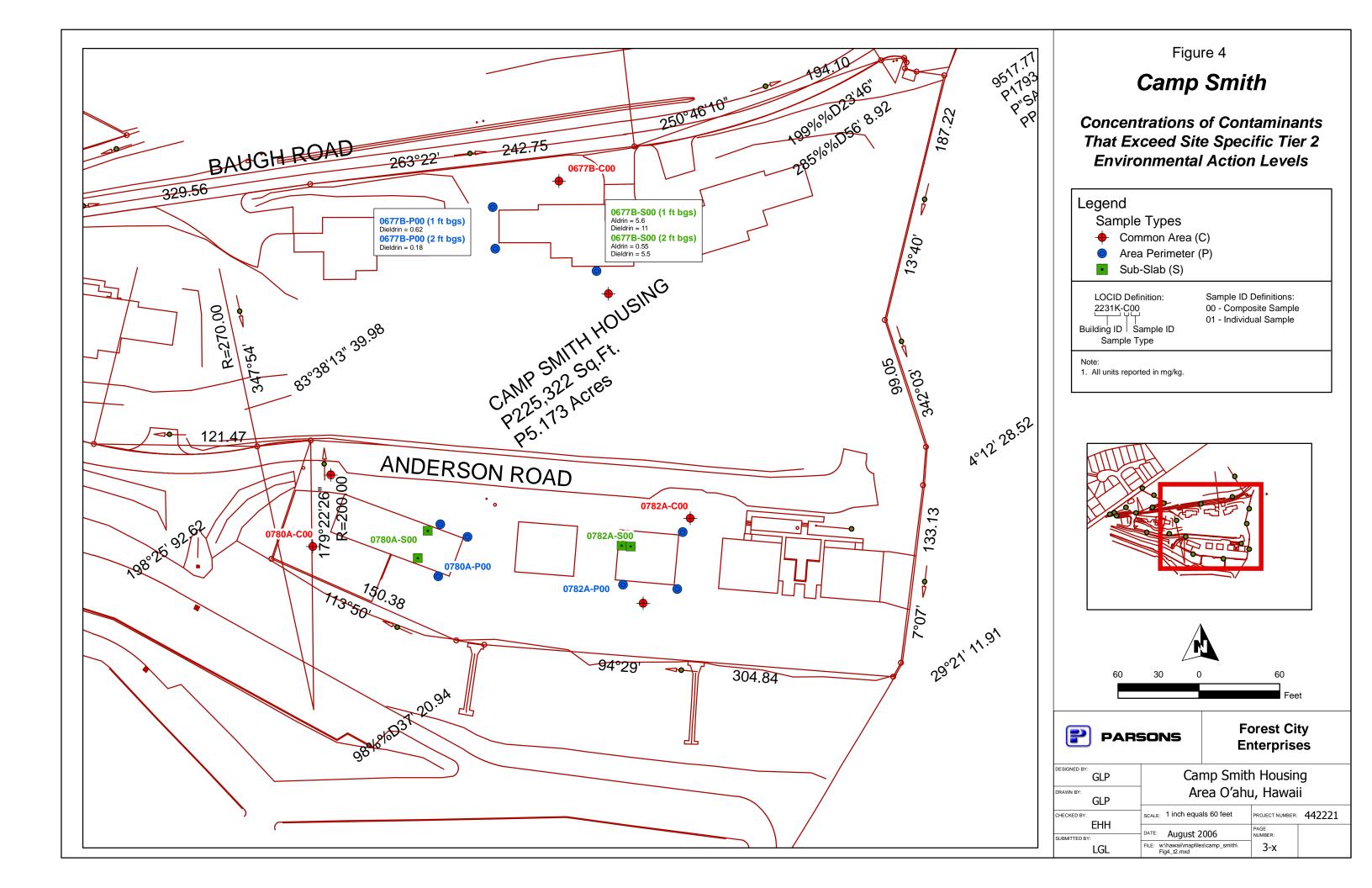


**FIGURES** 









APPENDIX 1 – LABORATORY RESULTS



STL Sacramento 880 Riverside Parkway West Sacramento, CA 95605

Tel: 916 373 5600 Fax: 916 372 1059

www.stl-inc.com

July 27, 2006

STL SACRAMENTO PROJECT NUMBER: G6F230422 PO/CONTRACT:

(b) (6)

Parsons Corporation 1132 Bishop St. Suite 2102 Honolulu, HI 96813

(b) (6)

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on June 23, 2006. These samples are associated with your 442221 project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (b) (6)

Sincerely,



Project Manager

#### TABLE OF CONTENTS

#### STL SACRAMENTO PROJECT NUMBER G6F230422

Case Narrative

STL Sacramento Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

SOLID, 8081A, Pesticides STD List Samples: 38 through 53 Sample Data Sheets Method Blank Report Laboratory QC Reports

SOLID, 6010B, Pb only Samples: 38 through 53 Sample Data Sheets Method Blank Report Laboratory QC Reports

#### CASE NARRATIVE

#### STL SACRAMENTO PROJECT NUMBER G6F230422

#### SOLID, 8081A, Pesticides STD List

Sample(s): 43, 45, 52

These samples were re-extracted outside of the 14 days hold time suggested by the method due to low surrogate recoveries. Both sets of data are reported.

Sample(s): 43, 52

The method blank (MB) associated with these re-extracted samples tested positive for aldrin, dieldrin and 4,4'-DDT. The concentrations were above the method detection limit (MDL) but below 1/2 the reporting limit (RL), therefore the data is reported with no further action. Samples with positive detections of these analytes have been B flagged.

Insufficient sample volume was available for a matrix spike/matrix spike duplicate (MS/MSD). A laboratory control sample/laboratory control sample duplicate (LCS/LCSD) was prepared instead.

#### SOLID, 6010B, Pb only

Samples: 38 through 53

The MSD recovery for lead was below the control limit of 80% at 69%. The LCS as well as the relative percent difference (RPD) between the MS/MSD was in control. Therefore the data is reported with no corrective action.

There were no other anomalies associated with this project.





#### **STL Sacramento Certifications/Accreditations**

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX-270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666	The state of the s	

<sup>\*</sup>NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

#### **QC Parameter Definitions**

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank**: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

### Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):

An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

## Sample Summary G6F230422

<u>W</u> O#	Sample #	Client Sample ID	Compline Date	Dansierad Data
H75WH	1	782A-3-1	Sampling Date	Received Date 6/23/2006 09:00 AM
H75WL	2	782A-3-1 782A-4-1		6/23/2006 09:00 AM
H75WM	3	782A-5-1		6/23/2006 09:00 AM
H75WN	4	782A-3-1 782A-3-2		6/23/2006 09:00 AM
H75WP	5	782A-4-2		6/23/2006 09:00 AM
H75WQ	6	782A-5-2		
H75WR	7	780A-7-1		6/23/2006 09:00 AM 6/23/2006 09:00 AM
H75WT	8	780A-8-1		
H75WV	9	780A-7-2		6/23/2006 09:00 AM
H75WW	10	780A-8-2		6/23/2006 09:00 AM
H75WX	11	780A-1-1		6/23/2006 09:00 AM
H75WA	12			6/23/2006 09:00 AM
H75W1	12	780A-1-2		6/23/2006 09:00 AM
H75W2	15 14	780A-1-2		6/23/2006 09:00 AM
H75W2	14 15	780A-2-1		6/23/2006 09:00 AM
		780A-3-1		6/23/2006 09:00 AM
H75W4	16	780A-5-1		6/23/2006 09:00 AM
H75W5	17	780A-5-1		6/23/2006 09:00 AM
H75W6	18	780A-4-2		6/23/2006 09:00 AM
H75W8	19	780A-4-2		6/23/2006 09:00 AM
H75W9	20	780A-5-2		6/23/2006 09:00 AM
H75XA	21	2579J-3-2		6/23/2006 09:00 AM
H75XC	22	2579J-4-2		6/23/2006 09:00 AM
H75XD	23	2579J-5-2		6/23/2006 09:00 AM
H75XE	24	2579J-1-1		6/23/2006 09:00 AM
H75XF	25	2579J-2-1		6/23/2006 09:00 AM
H75XG	26	2579J-1-2		6/23/2006 09:00 AM
H75XJ	27	2579J-2-2		6/23/2006 09:00 AM
H75XK	28	2579J-7-1		6/23/2006 09:00 AM
H75XL	29	2579J-8-1		6/23/2006 09:00 AM
H75XM	30	782A-7-1		6/23/2006 09:00 AM
H75XN	31	782A-8-1		6/23/2006 09:00 AM
H75XP	32	782A-7-2		6/23/2006 09:00 AM
H75XQ	33	782A-8-2		6/23/2006 09:00 AM
H75XT	34	782A-1-1		6/23/2006 09:00 AM
H75XV	35	782A-2-1		6/23/2006 09:00 AM
H75XW	36	782A-2-2		6/23/2006 09:00 AM
H75X0	37	782A-1-2		6/23/2006 09:00 AM
H75X1	38	782A-3-1,4-1,5-1 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H75X1	38	782A-3-1,4-1,5-1 COMPOSITE DUP	6/22/2006	6/23/2006 09:00 AM
H750K	39	782A-3-2,4-2,5-2 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750L	40	780A-7-1,8-1 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750N	41	780A-7-2,8-2 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750P	42	780A-1-1,2-1 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750Q	43	780A-1-2,2-2 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750R	44	780A-3-1,4-1,5-1 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750T	45	780A-3-2,4-2,5-2 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750V	46	2579J-1-1,2-1 COMPOSITE	6/21/2006	6/23/2006 09:00 AM

## **Sample Summary** G6F230422

H750W	47	2579J-1-2,2-2 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H750X	48	2579J-7-1,8-1 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H7500	49	782A-7-1,8-1 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H7501	50	782A-7-2,8-2 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H7502	51	782A-1-1,2-1 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H7503	52	782A-2-2,1-2 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H78DW	53	2479J-3-2,4-2,5-2 COMPOSITE	6/21/2006	6/23/2006 09:00 AM

#### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

## CHAIN-OF-CUSTODY RECORD

CLIENT:	Parsons								*						TAT	(circle	one):	24	-hr.	48-h	ır. 5	-day	or C	Other:	S	TP		-
ADDRESS:_	1132	Bis	hop.	St	#	2102																				of 5		
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	Sample ID#	Depth	Time	Sample Type	Contair	ner Type	8021b HVOC	8021b VOC	8021b BTEX	8021b MtBE	8015 Fuel Scan	8015 TPH-Gas	8015 TPH-Diesel	8015 TPH-Oji	8081 Pest.	8082 PCB	8100 PAH	8270 PAH	1010 FlashPoint	RCRA 8 Metals	Total: Pb Cd Cr As Hg or	TCLP	1 1 1	dia part		Comments		# of Containers
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## CHAIN-OF-CUSTODY RECORD

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## LOT RECEIPT CHECKLIST STL Sacramento

CLIENT Parsons		PM_4	P LOG # _	39615	
LOT# (QUANTIMS ID)	G6F230122	QUOTE#7 <i>©</i>	792_LOCA	ATION NOITH	Æ
				Initials	Date
DATE RECEIVEDC	1/23/06 TIME RECE	VED 0900	**************************************	Me.	6/23/06
DELIVERED BY	☐ AIRBORNE ☐ GOLD ☐ UPS ☐ BAX	VERNIGHT CLI DENSTATE DH GLOBAL GO RIERS ON DEMAND			
CUSTODY SEAL STAT	US 🗌 INTACT 🗌 BROK	KEN IN/A			
	ER(S) STL CLIEN	NT N/A			
		OTHER_			
TEMPERATURE BLAN	IK Observed:	Corrected:	<del>-</del>		
SAMPLE TEMPERAT Observed: 5 6 COLLECTOR'S NAME:	2 S Average: (9)	Corrected Avera	ge: (2)	J AN	loba ha
ph MEASURED	•	☐ ANOMALY	N/A		10/23/06
LABELS CHECKED BY PEER REVIEW	☑ NA	 i		-	
SHORT HOLD TEST N	OTIFICATION	SAMPLE RECE WETCHEM VOA-ENCORES	□ N/A		
☐ METALS NOTIFIED	OF FILTER/PRESERVE VIA VE	RBAL & EMAIL	☑ N/A		
	IENT RECEIVED IN GOOD CON MPERATURES, CONTAINERS, I		□ N/A		
☐ Clouseau	TEMPERATURE EXCE	EEDED (2 °C - 6 °C)*1	☑ N/A	W	
Notes:	BLUE ICE GEL I	PACK NO COOLIN	NG AGENTS USE	D PI	M NOTIFIED
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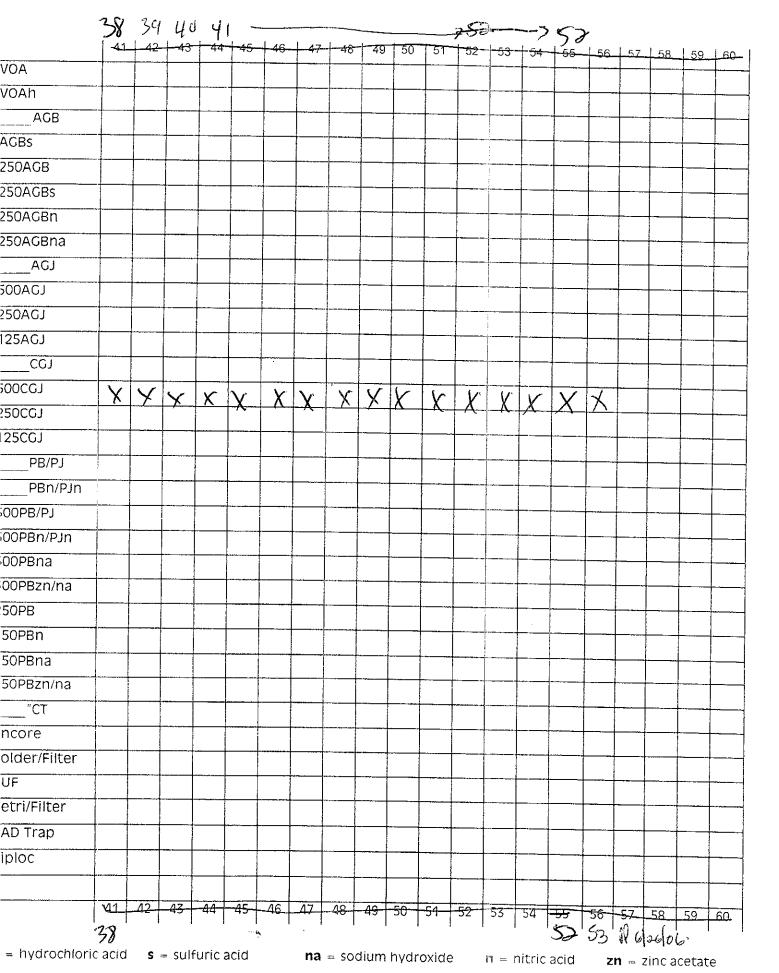
Bottle Lot Inventory

Lot
ID: 4670350422

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umber of VOAs with air bubbles present / total number of VOA's

QA-185 3/05 EM Page 2



Number of VOA's with air bubbles present / total number of VOA's

4185 10/98 MCD **G6F230422**  X = (15) STL Secremento (976) 373 - 5600

## SOLID, 8081A, Pesticides STD List

#### Client Sample ID: 782A-3-1,4-1,5-1 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-038 Work Order #...: H75X11AA Matrix...... SOLID

Date Sampled...: 06/22/06 Date Received..: 06/23/06 Prep Date....: 07/05/06 Analysis Date..: 07/14/06

Prep Batch #...: 6184405

Dilution Factor: 1

**% Moisture....:** 28 **Method.....**: SW846 8081A

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	2.4	ug/kg	0.16
gamma-BHC (Lindane)	ND	2.4	ug/kg	0.18
Heptachlor	ND	2.4	ug/kg	0.23
Aldrin	ND	2.4	ug/kg	0.16
beta-BHC	ND	2.4	ug/kg	0.16
delta-BHC	ND	2.4	ug/kg	0.092
Heptachlor epoxide	2.0 Ј	2.4	ug/kg	0.15
Endosulfan I	ND	2.4	ug/kg	0.24
gamma-Chlordane	ND	2.4	ug/kg	0.22
alpha-Chlordane	6.3	2.4	ug/kg	0.30
4,4'-DDE	2.0 J	4.8	ug/kg	0.35
Dieldrin	2.6 J	4.8	ug/kg	0.31
Endrin	ND	4.8	ug/kg	0.41
4,4'-DDD	ND	4.8	ug/kg	0.37
Endosulfan II	ND	4.8	ug/kg	0.43
4,4'-DDT	2.0 J	4.8	ug/kg	0.18
Endrin aldehyde	ND	4.8	ug/kg	0.24
Methoxychlor	ND	24	ug/kg	1.8
Endosulfan sulfate	ND	4.8	ug/kg	0.30
Endrin ketone	ND	4.8	ug/kg	0.33
Toxaphene	ND	94	ug/kg	30
	PERCENT	RECOVERY	•	
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	81	(55 - 13	0)	
Tetrachloro-m-xylene	87	(70 - 12		

#### NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

#### Client Sample ID: 782A-3-2,4-2,5-2 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-039 Work Order #...: H750K1AA Matrix.....: SOLID

 Date Sampled...:
 06/22/06
 Date Received..:
 06/23/06

 Prep Date.....:
 07/05/06
 Analysis Date..:
 07/18/06

Prep Batch #...: 6184405

Dilution Factor: 2

**% Moisture....:** 27 **Method.....:** SW846 8081A

		REPORTING	ł	
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	4.7	ug/kg	0.32
gamma-BHC (Lindane)	ND	4.7	ug/kg	0.35
Heptachlor	ND	4.7	ug/kg	0.45
Aldrin	34	4.7	ug/kg	0.31
beta-BHC	ND	4.7	ug/kg	0.32
delta-BHC	ND	4.7	ug/kg	0.18
Heptachlor epoxide	ND	4.7	ug/kg	0.29
Endosulfan I	ND	4.7	ug/kg	0.47
gamma-Chlordane	ND	4.7	ug/kg	0.43
alpha-Chlordane	ND	4.7	ug/kg	0.58
4,4'-DDE	ND	9.3	ug/kg	0.69
Dieldrin	14	9.3	ug/kg	0.61
Endrin	ND	9.3	ug/kg	0.80
4,4'-DDD	ND	9.3	ug/kg	0.72
Endosulfan II	ND	9.3	ug/kg	0.84
4,4'-DDT	1.7 J	9.3	ug/kg	0.36
Endrin aldehyde	ND	9.3	ug/kg	0.47
Methoxychlor	ND	47	ug/kg	3.4
Endosulfan sulfate	ND	9.3	ug/kg	0.59
Endrin ketone	ND	9.3	ug/kg	0.64
Toxaphene	ND	180	ug/kg	58
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	75	(55 - 130	)	
Tetrachloro-m-xylene	73	<b>(70 - 12</b> 5	)	

#### NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

#### Client Sample ID: 780A-7-1,8-1 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-040 Work Order #...: H750L1AA Matrix.....: SOLID

**Prep Batch #...:** 6184405

Dilution Factor: 100

% Moisture....: 26 Method.....: SW846 8081A

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	230	ug/kg	16
gamma-BHC (Lindane)	ND	230	ug/kg	17
Heptachlor	ND	230	ug/kg	22
Aldrin	ND	230	ug/kg	15
beta-BHC	ND	230	ug/kg	16
delta-BHC	ND	230	ug/kg	8.9
Heptachlor epoxide	ND	230	ug/kg	14
Endosulfan I	ND	230	ug/kg	23
gamma-Chl.ordane	41.0	230	ug/kg	21
alpha-Chlordane	350	230	ug/kg	29
4,4'-DDE	ND	460	ug/kg	34
Dieldrin	ND	460	ug/kg	30
Endrin	ND	460	ug/kg	40
4,4'-DDD	ND	460	ug/kg	35
Endosulfan II	ND	460	ug/kg	42
4,4'-DDT	ND	460	ug/kg	18
Endrin aldehyde	ŃD	460	ug/kg	23
Methoxychlor	ND	2300	ug/kg	170
Endosulfan sulfate	ND	460	ug/kg	29
Endrin ketone	ND	460	ug/kg	32
Toxaphene	ND	9100	ug/kg	2900
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	0.0 SRD	(55 - 130)		
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)		

NOTE (S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

#### Client Sample ID: 780A-7-2,8-2 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-041 Work Order #...: H750N1AA Matrix...... SOLID

 Date Sampled...:
 06/22/06
 Date Received..:
 06/23/06

 Prep Date.....:
 07/05/06
 Analysis Date..:
 07/14/06

**Prep Batch #...:** 6184405

Dilution Factor: 100

% Moisture....: 25 Method....: SW846 8081A

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	230	ug/kg	16
gamma-BHC (Lindane)	ND	230	ug/kg	17
Heptachlor	38 J	230	ug/kg	22
Aldrin	ND	230	ug/kg	15
beta-BHC	ND	230	ug/kg	16
delta-BHC	ND	230	ug/kg	8.8
Heptachlor epoxide	ND	230	ug/kg	14
Endosulfan I	ND	230	ug/kg	23
gamma-Chlordane	350	230	ug/kg	21
alpha-Chlordane	350	230	ug/kg	28
4,4'-DDE	ND	450	ug/kg	34
Dieldrin	ND	450	ug/kg	30
Endrin	ND	450	ug/kg	39
4,4'-DDD	ND	450	ug/kg	35
Endosulfan II	ND	450	ug/kg	41
4,4'-DDT	ND	450	ug/kg	17
Endrin aldehyde	ND	450	ug/kg	23
Methoxychlor	ND	2300	ug/kg	170
Endosulfan sulfate	ND	450	ug/kg	29
Endrin ketone	ND	450	ug/kg	31
Toxaphene	ND	9000	ug/kg	2900
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	0.0 SRD	(55 - 130)		
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)		

#### NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

# Client Sample ID: 780A-1-1,2-1 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-042 Work Order #...: H750P1AA Matrix.....: SOLID

Date Sampled...: 06/22/06 Date Received..: 06/23/06 Prep Date....: 07/05/06 Analysis Date..: 07/14/06

Prep Batch #...: 6184405

Dilution Factor: 1

**% Moisture....:** 24 **Method.....:** SW846 8081A

	REPORTING		
RESULT	LIMIT	UNITS	MDL
ND	2.3	ug/kg	0.15
ND	2.3	ug/kg	0.17
ND	2.3	ug/kg	0.22
ND	2.3	ug/kg	0.15
ND	2.3	ug/kg	0.16
ND	2.3	ug/kg	0.087
ND	2.3	ug/kg	0.14
ND	2.3	ug/kg	0.23
ND	2.3	ug/kg	0.21
1.2 J	2.3	ug/kg	0.28
0.90 J,PG	4.5	ug/kg	0.33
ND	4.5	ug/kg	0.30
ND	4.5	ug/kg	0.39
ND	4.5	ug/kg	0.35
ND	4.5	ug/kg	0.41
0.90 J	4.5	ug/kg	0.17
ND	4.5	ug/kg	0.23
ND	23	ug/kg	1.7
ND	4.5	ug/kg	0.29
ND	4.5	ug/kg	0.31
ND	89	ug/kg	28
PERCENT	RECOVERY		
RECOVERY	LIMITS		
75	(55 - 130)		
77	(70 - 125)		
	ND ND ND ND ND ND ND ND ND 1.2 J 0.90 J,PG ND ND ND ND ND ND ND ND ND ND ND ND ND	RESULT         LIMIT           ND         2.3           1.2 J         2.3           0.90 J, PG         4.5           ND         89           PERCENT         RECOVERY           RECOVERY         LIMITS           75         (55 - 130)	ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   2.3   ug/kg     ND   4.5   ug/kg     ND   4.

#### NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

# Client Sample ID: 780A-1-2,2-2 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-043 Work Order #...: H750Q1AA Matrix..... SOLID

REPORTING

Date Sampled...: 06/22/06 Date Received..: 06/23/06 Prep Date....: 07/05/06 Analysis Date..: 07/14/06

Prep Batch #...: 6184405

Dilution Factor: 1

% Moisture....: 27 Method..... SW846 8081A

#### PARAMETER UNITS RESULT LIMIT MDL alpha-BHC ND 2.3 ug/kg 0.16 gamma-BHC (Lindane) ND 2.3 ug/kg 0.18 Heptachlor ND2.3 uq/kq 0.23 Aldrin 0.79 J, PG 2.3 ug/kg 0.16 beta-BHC ND 2.3 ug/kg 0.16 delta-BHC ND 2.3 0.090 ug/kg Heptachlor epoxide ND 2.3 ug/kg 0.15 Endosulfan I ND 2.3 ug/kg 0.24 gamma-Chlordane ND 2.3 0.21 ug/kg alpha-Chlordane ND 2.3 ug/kg 0.29 4,4'-DDE ИD 4.7 ug/kg 0.35 Dieldrin 0.43 J 4.7 uq/kq 0.31 Endrin ND 4.7 ug/kg 0.40 4,4'-DDD ND 4.7 ug/kg 0.36 Endosulfan II ND 4.7 ug/kg 0.42 4,4'-DDT 0.68 J, PG 4.7 ug/kg 0.18 Endrin aldehyde ND 4.7 ug/kg 0.24 Methoxychlor ND23 ug/kg 1.7 Endosulfan sulfate ND 4.7 ug/kg 0.30

4.7

92

0.32

29

ug/kg

ug/kg

	PERCENT	RECOVERY
SURROGATE	RECOVERY	LIMITS
Decachlorobiphenyl	54 *	(55 - 130)
Tetrachloro-m-xylene	66 *	(70 - 125)

ND

ND

#### NOTE(S):

Endrin ketone

Toxaphene

<sup>\*</sup> Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

# Client Sample ID: 780A-1-2,2-2 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-043 Work Order #...: H750Q2AA Matrix.....: SOLID

Date Sampled...: 06/22/06 Date Received..: 06/23/06 Prep Date....: 07/20/06 Analysis Date..: 07/21/06

Prep Batch #...: 6201303

Dilution Factor: 1

**% Moisture....:** 27 **Method.....:** SW846 8081A

77.77	$\neg \land$	-	TATO	
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PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	2.3	ug/kg	0.16
gamma-BHC (Lindane)	ND	2.3	ug/kg	0.18
Heptachlor	ND	2.3	ug/kg	0.23
Aldrin	14 B	2.3	ug/kg	0.16
beta-BHC	ND	2.3	ug/kg	0.16
delta-BHC	ND	2.3	ug/kg	0.090
Heptachlor epoxide	ND	2.3	ug/kg	0.15
Endosulfan I	ND	2.3	ug/kg	0.24
gamma-Chlordane	ND	2.3	ug/kg	0.21
alpha-Chlordane	ND	2.3	ug/kg	0.29
4,4'-DDE	ND	4.7	ug/kg	0.35
Dieldrin	4.0 J,B	4.7	ug/kg	0.31
Endrin	ND	4.7	ug/kg	0.40
4,4'-DDD	ND	4.7	ug/kg	0.36
Endosulfan II	ND	4.7	ug/kg	0.42
4,4'-DDT	0.41 J,B	4.7	ug/kg	0.18
Endrin aldehyde	ND	4.7	ug/kg	0.24
Methoxychlor	ND	23	ug/kg	1.7
Endosulfan sulfate	ND	4.7	ug/kg	0.30
Endrin ketone	ND	4.7	ug/kg	0.32
Toxaphene	ND	92	ug/kg	29
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	79	(55 - 130)		
Tetrachloro-m-xylene	88	(70 - 125)		

# NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than RL.

# Client Sample ID: 780A-3-1,4-1,5-1 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-044 Work Order #...: H750R1AA Matrix.....: SOLID

 Date Sampled...:
 06/22/06
 Date Received..:
 06/23/06

 Prep Date.....:
 07/05/06
 Analysis Date..:
 07/14/06

Prep Batch #...: 6184405

Dilution Factor: 5

% Moisture....: 25 Method....: SW846 8081A

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	11	ug/kg	0.78
gamma-BHC (Lindane)	ND	11	ug/kg	0.86
Heptachlor	ND	11	ug/kg	1.1
Aldrin	ND	11	ug/kg	0.76
beta-BHC	ND	11	ug/kg	0.78
delta-BHC	ND	11	ug/kg	0.44
Heptachlor epoxide	ND	11	ug/kg	0.71
Endosulfan I	ND.	11	ug/kg	1.1
gamma-Chlordane	1.9 J	11	ug/kg	1.0
alpha-Chlordane	9.8 J	11	ug/kg	1.4
4,4'-DDE	ND	23	ug/kg	1.7
Dieldrin	ND	23	ug/kg	1.5
Endrin	ND	23	ug/kg	2.0
4,4'-DDD	ND	23	ug/kg	1.7
Endosulfan II	ND	23	ug/kg	2.1
4,4'-DDT	ND	23	ug/kg	0.87
Endrin aldehyde	ND	23	ug/kg	1.1
Methoxychlor	ND	110	ug/kg	8.4
Endosulfan sulfate	ND	23	ug/kg	1.4
Endrin ketone	ND	23	ug/kg	1.6
Toxaphene	ND	450	ug/kg	140
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS	•	
Decachlorobiphenyl	0.0 SRD	(55 - 130)		
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)		

#### NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

#### Client Sample ID: 780A-3-2,4-2,5-2 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-045 Work Order #...: H750T1AA Matrix.....: SOLID

Date Sampled...: 06/22/06 Date Received..: 06/23/06
Prep Date....: 07/05/06 Analysis Date..: 07/14/06

Prep Batch #...: 6184405

Dilution Factor: 1

**% Moisture....:** 23 **Method.....:** SW846 8081A

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	2.2	ug/kg	0.15
gamma-BHC (Lindane)	ND	2.2	ug/kg	0.17
Heptachlor	ND	2.2	ug/kg	0.22
Aldrin	3.2	2.2	ug/kg	0.15
beta-BHC	ND	2.2	ug/kg	0.15
delta-BHC	ИD	2.2	ug/kg	0.085
Heptachlor epoxide	<b>0.22</b> J	2.2	ug/kg	0.14
Endosulfan I	ND	2.2	ug/kg	0.22
gamma-Chlordane	ND	2.2	ug/kg	0.20
alpha-Chlordane	ND	2.2	ug/kg	0.28
4,4'-DDE	ND	4.4	ug/kg	0.33
Dieldrin	1.6 J	4.4	ug/kg	0.29
Endrin	ND	4.4	ug/kg	0.38
4,4'-DDD	ND	4.4	ug/kg	0.34
Endosulfan II	ND	4.4	ug/kg	0.40
4,4'-DDT	ND	4.4	ug/kg	0.17
Endrin aldehyde	ND	4.4	ug/kg	0.22
Methoxychlor	ND	22	ug/kg	1.6
Endosulfan sulfate	ND	4.4	ug/kg	0.28
Endrin ketone	ND	4.4	ug/kg	0.31
Toxaphene	ND	87	ug/kg	28
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	70	(55 - 130	)	
Tetrachloro-m-xylene	62 *	(70 - 125	)	

#### NOTE(S):

<sup>\*</sup> Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

# Client Sample ID: 780A-3-2,4-2,5-2 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-045 Work Order #...: H750T2AA Matrix...... SOLID

 Date Sampled...:
 06/22/06
 Date Received..:
 06/23/06

 Prep Date.....:
 07/17/06
 Analysis Date..:
 07/20/06

Prep Batch #...: 6197482

Dilution Factor: 1

**% Moisture....:** 23 **Method.....:** SW846 8081A

PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	2.2	ug/kg	0.15
gamma-BHC (Lindane)	ND	2.2	ug/kg	0.17
Heptachlor	ND	2.2	ug/kg	0.22
Aldrin	0.25 J	2.2	ug/kg	0.15
beta-BHC	ND	2.2	ug/kg	0.15
delta-BHC	ND	2.2	ug/kg	0.085
Heptachlor epoxide	ND	2.2	ug/kg	0.14
Endosulfan I	ND	2.2	ug/kg	0.22
gamma-Chlordane	ND	2.2	ug/kg	0.20
alpha-Chlordane	ND	2.2	ug/kg	0.28
4,4'-DDE	ND	4.4	ug/kg	0.33
Dieldrin	ND	4.4	ug/kg	0.29
Endrin	ND	4.4	ug/kg	0.38
4,4'-DDD	ND	4.4	ug/kg	0.34
Endosulfan II	ND	4.4	ug/kg	0.40
4,4'-DDT	ND	4.4	ug/kg	0.17
Endrin aldehyde	ND	4.4	ug/kg	0.22
Methoxychlor	ND	22	ug/kg	1.6
Endosulfan sulfate	ND	4.4	v.g/kg	0.28
Endrin ketone	ND	4.4	ug/kg	0.31
Toxaphene	ND	87	ug/kg	28
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	80	(55 - 130)		
Tetrachloro-m-xylene	81	(70 - 125)		

#### NOTE(S):

J Estimated result. Result is less than RL.

#### Client Sample ID: 782A-7-1,8-1 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-049 Work Order #...: H75001AA Matrix.....: SOLID

Date Sampled...: 06/21/06 Date Received..: 06/23/06
Prep Date....: 07/05/06 Analysis Date..: 07/18/06

**Prep Batch #...:** 6184405

Dilution Factor: 100

% Moisture....: 24 Method.....: SW846 8081A

REPORT	ING
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PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	220	ug/kg	15
gamma-BHC (Lindane)	ND	220	ug/kg	17
Heptachlor	ND	220	ug/kg	22
Aldrin	ND	220	ug/kg	15
beta-BHC	ND	220	ug/kg	15
delta-BHC	ND	220	ug/kg	8.6
Heptachlor epoxide	ND	220	ug/kg	14
Endosulfan I	ND	220	ug/kg	22
gamma-Chlordane	890	220	ug/kg	20
alpha-Chlordane	830	220	ug/kg	28
4,4'-DDE	ND	440	ug/kg	33
Dieldrin	ND	440	ug/kg	29
Endrin	ND	440	ug/kg	38
4,4'-DDD	ND	440	ug/kg	34
Endosulfan II	ND	440	ug/kg	40
4,4'-DDT	ND	440	ug/kg	17
Endrin aldehyde	ND	440	ug/kg	22
Methoxychlor	ND	2200	ug/kg	160
Endosulfan sulfate	ND	440	ug/kg	28
Endrin ketone	ND	440	ug/kg	31
Toxaphene	ND	8800	ug/kg	2800
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	SRD	(55 - 130)		
Tetrachloro-m-xylene	SRD	(70 - 125)		

#### NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

# Client Sample ID: 782A-7-2,8-2 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-050 Work Order #...: H75011AA Matrix......: SOLID

DEDODUTNO

 Date Sampled...:
 06/21/06
 Date Received...
 06/23/06

 Prep Date.....:
 07/05/06
 Analysis Date...
 07/15/06

Prep Batch #...: 6184405

Dilution Factor: 20

**% Moisture....:** 24 Method.....: SW846 8081A

# NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

# Client Sample ID: 782A-1-1,2-1 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-051 Work Order #...: H75021AA Matrix.....: SOLID

Date Sampled...: 06/21/06 Date Received..: 06/23/06 Prep Date....: 07/05/06 Analysis Date..: 07/15/06

Prep Batch #...: 6184405

Dilution Factor: 2

**% Moisture....:** 30 **Method.....:** SW846 8081A

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	4.8	ug/kg	0.33
gamma-BHC (Lindane)	ND	4.8	ug/kg	0.37
Heptachlor	ND	4.8	ug/kg	0.47
Aldrin	ND	4.8	ug/kg	0.33
beta-BHC	ND	4.8	ug/kg	0.34
delta-BHC	ND	4.8	ug/kg	0.19
Heptachlor epoxide	ND	4.8	ug/kg	0.30
Endosulfan I	ND	4.8	ug/kg	0.49
gamma-Chlordane	ND	4.8	ug/kg	0.44
alpha-Chlordane	ND	4.8	ug/kg	0.61
4,4'-DDE	ND	9.7	ug/kg	0.72
Dieldrin	ND	9.7	ug/kg	0.64
Endrin	ND	9.7	ug/kg	0.83
4,4'-DDD	ND	9.7	ug/kg	0.75
Endosulfan II	ND	9.7	ug/kg	0.88
4,4'-DDT	0.62 J	9.7	ug/kg	0.37
Endrin aldehyde	ND	9.7	ug/kg	0.49
Methoxychlor	ND	48	ug/kg	3.6
Endosulfan sulfate	ND	9.7	ug/kg	0.62
Endrin ketone	ND	9.7	ug/kg	0.67
Toxaphene	ND	190	ug/kg	61
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	84	(55 - 130)		
Tetrachloro-m-xylene	81	(70 - 125)		

#### NOTE(S):

J Estimated result. Result is less than RL.

# Client Sample ID: 782A-2-2,1-2 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-052 Work Order #...: H75031AA Matrix.....: SOLID

 Date Sampled...:
 06/21/06
 Date Received...
 06/23/06

 Prep Date.....:
 07/05/06
 Analysis Date...
 07/15/06

**Prep Batch #...:** 6184405

Dilution Factor: 1

**% Moisture....:** 28 **Method.....:** SW846 8081A

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	2.4	ug/kg	0.16
gamma-BHC (Lindane)	ND	2.4	ug/kg	0.18
Heptachlor	ND	2.4	ug/kg	0.23
Aldrin	ND	2.4	ug/kg	0.16
beta-BHC	ND	2.4	ug/kg	0.16
delta-BHC	ND	2.4	ug/kg	0.092
Heptachlor epoxide	ND	2.4	ug/kg	0.15
Endosulfan I	ND	2.4	ug/kg	0.24
gamma-Chlordane	ND	2.4	ug/kg	0.22
alpha-Chlordane	ND	2.4	ug/kg	0.30
4,4'-DDE	ND	4.8	ug/kg	0.35
Dieldrin	ND	4.8	ug/kg	0.31
Endrin	ND	4.8	ug/kg	0.41
4,4'-DDD	ND	4.8	ug/kg	0.37
Endosulfan II	ND	4.8	ug/kg	0.43
4,4'~DDT	0.48 J	4.8	ug/kg	0.18
Endrin aldehyde	ND	4.8	ug/kg	0.24
Methoxychlor	ND	24	ug/kg	1.8
Endosulfan sulfate	ND	4.8	ug/kg	0.30
Endrin ketone	ND	4.8	ug/kg	0.33
Toxaphene	ND	94	ug/kg	30
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	77	(55 - 130)		
Tetrachloro-m-xylene	62 *	(70 - 125)		

#### NOTE(S):

<sup>\*</sup> Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

# Client Sample ID: 782A-2-2,1-2 COMPOSITE

#### GC Semivolatiles

Lot-Sample #...: G6F230422-052 Work Order #...: H75032AA Matrix.....: SOLID

D=D05m=13/4

Date Sampled...: 06/21/06 Date Received..: 06/23/06 Prep Date....: 07/20/06 Analysis Date..: 07/21/06

Prep Batch #...: 6201303

Dilution Factor: 1

		REPORTING			
PARAMETER	RESULT	LIMIT	UNITS	MDL	
alpha-BHC	ND	2.4	ug/kg	0.16	
gamma-BHC (Lindane)	ND	2.4	ug/kg	0.18	
Heptachlor	ND	2.4	ug/kg	0.23	
Aldrin	2.9 B	2.4	ug/kg	0.16	
beta-BHC	ND	2.4	ug/kg	0.16	
delta-BHC	ND	2.4	ug/kg	0.092	
Heptachlor epoxide	ND	2.4	ug/kg	0.15	
Endosulfan I	ND	2.4	ug/kg	0.24	
gamma-Chlordane	ND	2.4	ug/kg	0.22	
alpha-Chlordane	ND	2.4	ug/kg	0.30	
4,4'-DDE	ND	4.8	ug/kg	0.35	
Dieldrin	0.91 J,B	4.8	ug/kg	0.31	
Endrin	ND	4.8	ug/kg	0.41	
4,4'-DDD	ND	4.8	ug/kg	0.37	
Endosulfan II	ND	4.8	ug/kg	0.43	
4,4'-DDT	ND	4.8	ug/kg	0.18	
Endrin aldehyde	ND	4.8	ug/kg	0.24	
Methoxychlor	ND	24	ug/kg	1.8	
Endosulfan sulfate	ND	4.8	ug/kg	0.30	
Endrin ketone	ND	4.8	ug/kg	0.33	
Toxaphene	ND	94	ug/kg	30	
	PERCENT	RECOVERY	•		
SURROGATE	RECOVERY	LIMITS			
Decachlorobiphenyl	80	(55 - 13	0)		
Tetrachloro-m-xylene	82	(70 - 12	5)		

#### NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than RL.

# QC DATA ASSOCIATION SUMMARY

# G6F230422

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
038	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
	SOLIE	20040 00100		610/09/	6187041
039	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
040	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
041	SOLID	ASTM D 2216-90		6181521	6181291
011	SOLID	SW846 8081A		6181521	
	SOLID	SW846 6010B		6187097	6186212
	20111	24040 0010B		618/09/	6187041
042	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
043	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 8081A		6201303	
	SOLID	SW846 6010B		6187097	6187041
044	SOLID	ASTM D 2216-90		6181521	6181291
0 1 1	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
	00111	DW040 0010D		010/09/	010/041
045	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 8081A		6197482	
	SOLID	SW846 6010B		6187097	6187041
046	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
047	COLID	NORM DOOLE OO		6100070	610015
047	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041

# QC DATA ASSOCIATION SUMMARY

#### G6F230422

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
048	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
049	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
050	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
051	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
052	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 8081A		6201303	
	SOLID	SW846 6010B		6187097	6187041
053	SOLID	ASTM D 2216-90		6180272	6180171
•	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041

#### METHOD BLANK REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H8NC01AA Matrix...... SOLID

MB Lot-Sample #: G6G030000-405

Prep Date....: 07/05/06
Prep Batch #...: 6184405

Analysis Date..: 07/13/06

Dilution Factor: 1

#### REPORTING

PARAMETER	RESULT	LIMIT	UNITS	METHOD
alpha-BHC	ND	1.7	ug/kg	SW846 8081A
gamma-BHC (Lindane)	ND	1.7	ug/kg	SW846 8081A
Heptachlor	ND	1.7	ug/ <b>kg</b>	SW846 8081A
Aldrin	ND	1.7	ug/kg	SW846 8081A
beta-BHC	ND	1.7	ug/kg	SW846 8081A
delta-BHC	ND	1.7	ug/kg	SW846 8081A
Heptachlor epoxide	ND	1.7	ug/kg	SW846 8081A
Endosulfan I	ND	1.7	ug/kg	SW846 8081A
gamma-Chlordane	ND	1.7	ug/ <b>kg</b>	SW846 8081A
alpha-Chlordane	ND	1.7	ug/kg	SW846 8081A
4,4'-DDE	ND	3.4	ug/kg	SW846 8081A
Dieldrin	ND	3.4	ug/kg	SW846 8081A
Endrin	ND	3.4	ug/k <b>g</b>	SW846 8081A
4,4'-DDD	ND	3.4	ug/k <b>g</b>	SW846 8081A
Endosulfan II	ND	3.4	ug/kg	SW846 8081A
4,4'-DDT	ND	3.4	ug/kg	SW846 8081A
Endrin aldehyde	ND	3.4	ug/kg	SW846 8081A
Methoxychlor	ND	17	ug/kg	SW846 8081A
Endosulfan sulfate	ND	3.4	ug/kg	SW846 8081A
Endrin ketone	ND	3.4	ug/kg	SW846 8081A
Toxaphene	ND	67	ug/kg	SW846 8081A
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS	_	
Decachlorobiphenyl	86	(55 - 130	)	
Tetrachloro-m-xylene	82	(70 - 125	)	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### METHOD BLANK REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H9EVP1AA Matrix...... SOLID

MB Lot-Sample #: G6G160000-482

Prep Date....: 07/17/06

Dilution Factor: 1

#### REPORTING

PARAMETER	RESULT	LIMIT	UNITS	METHOD
alpha-BHC	ND	1.7	ug/kg	SW846 8081A
gamma-BHC (Lindane)	ND	1.7	ug/kg	SW846 8081A
Heptachlor	ND	1.7	ug/kg	SW846 8081A
Aldrin	ND	1.7	ug/kg	SW846 8081A
beta-BHC	ND	1.7	ug/kg	SW846 8081A
delta-BHC	ND	1.7	ug/kg	SW846 8081A
Heptachlor epoxide	ND	1.7	ug/kg	SW846 8081A
Endosulfan I	ND	1.7	'ug/kg	SW846 8081A
gamma-Chlordane	ИD	1.7	ug/kg	SW846 8081A
alpha-Chlordane	ND	1.7	ug/kg	SW846 8081A
4,4'-DDE	ND	3.4	ug/kg	SW846 8081A
Dieldrin	ND	3.4	ug/kg	SW846 8081A
Endrin	ND	3.4	ug/kg	SW846 8081A
4,4'-DDD	ND	3.4	ug/kg	SW846 8081A
Endosulfan II	ND	3.4	ug/kg	SW846 8081A
4,4'-DDT	ND	3.4	ug/kg	SW846 8081A
Endrin aldehyde	ND	3.4	ug/kg	SW846 8081A
Methoxychlor	ND	17	ug/kg	SW846 8081A
Endosulfan sulfate	ND	3.4	ug/kg	SW846 8081A
Endrin ketone	ND	3.4	ug/kg	SW846 8081A
Toxaphene	ND	67	ug/kg	SW846 8081A
	PERCENT	RECOVER	ď.	
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	86	(55 - 13	30)	
Tetrachloro-m-xylene	92	(70 - 12	25)	
_				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### METHOD BLANK REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H9MH51AA Matrix.....: SOLID

MB Lot-Sample #: G6G200000-303

Prep Date....: 07/20/06
Prep Batch #...: 6201303

Analysis Date..: 07/21/06

Dilution Factor: 1

#### REPORTING

PARAMETER	RESULT	LIMIT	UNITS	METHOD
alpha-BHC	ND	1.7	ug/kg	SW846 8081A
gamma-BHC (Lindane)	ND	1.7	ug/kg	SW846 8081A
Heptachlor	ND	1.7	ug/kg	SW846 8081A
Aldrin	0.50 J	1.7	ug/kg	SW846 8081A
beta-BHC	ND	1.7	ug/kg	SW846 8081A
delta-BHC	ND	1.7	ug/kg	SW846 8081A
Heptachlor epoxide	ND	1.7	ug/kg	SW846 8081A
Endosulfan I	ND	1.7	ug/ <b>kg</b>	SW846 8081A
gamma-Chlordane	ND	1.7	ug/kg	SW846 8081A
alpha-Chlordane	ND	1.7	ug/kg	SW846 8081A
4,4'-DDE	ND	3.4	ug/kg	SW846 8081A
Dieldrin	0.59 J	3.4	ug/kg	SW846 8081A
Endrin	ND	3.4	ug/kg	SW846 8081A
4,4'-DDD	ND	3.4	ug/kg	SW846 8081A
Endosulfan II	ND	3.4	ug/kg	SW846 8081A
4,4'-DDT	0.66 J	3.4	ug/kg	SW846 8081A
Endrin aldehyde	ND	3.4	ug/kg	SW846 8081A
Methoxychlor	ND	17	ug/kg	SW846 8081A
Endosulfan sulfate	ND	3.4	ug/kg	SW846 8081A
Endrin ketone	ND	3.4	ug/kg	SW846 8081A
Toxaphene	ND	67	ug/kg	SW846 8081A
	DEDCENT	DECOMEDA		
CHDDACATE				
			<u>, , , , , , , , , , , , , , , , , , , </u>	
		•	•	
Tecraciiioto-m-xAiene	11.	(10 - 125	, ,	
Endosulfan II  4,4'-DDT  Endrin aldehyde  Methoxychlor  Endosulfan sulfate  Endrin ketone	ND 0.66 J ND ND ND ND ND	3.4 3.4 17 3.4 3.4	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	SW846 8081A SW846 8081A SW846 8081A SW846 8081A SW846 8081A

# NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H8NC01AC Matrix.....: SOLID

LCS Lot-Sample#: G6G030000-405

**Prep Date....:** 07/05/06 **Analysis Date..:** 07/13/06

Prep Batch #...: 6184405

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
alpha-BHC	8.33	7.72	ug/kg	93	SW846 8081A
gamma-BHC (Lindane)	8.33	8.01	u <b>g/kg</b>	96	SW846 8081A
Heptachlor	8.33	9.01	ug/kg	108	SW846 8081A
Aldrin	8.33	7.75	ug/kg	93	SW846 8081A
beta-BHC	8.33	9.70	u <b>g/kg</b>	116	SW846 8081A
delta-BHC	8.33	8.46	u <b>g/kg</b>	102	SW846 8081A
Heptachlor epoxide	8.33	7.98	ug/kg	96	SW846 8081A
Endosulfan I	8.33	7.96	u <b>g/kg</b>	96	SW846 8081A
gamma-Chlordane	8.33	8.22	ug/kg	99	SW846 8081A
alpha-Chlordane	8.33	8.16	u <b>g/kg</b>	98	SW846 8081A
4,4'-DDE	16.7	16.8	u <b>g/kg</b>	101	SW846 8081A
Dieldrin	16.7	16.3	ug/kg	98	SW846 8081A
Endrin	16.7	19.0	ug/kg	114	SW846 8081A
4,4'-DDD	16.7	17.9	u <b>g/kg</b>	107	SW846 8081A
Endosulfan II	16.7	16.8	u <b>g/kg</b>	101	SW846 8081A
4,4'-DDT	16.7	18.3	u <b>g/kg</b>	110	SW846 8081A
Endrin aldehyde	16.7	12.6	u <b>g/kg</b>	76	SW846 8081A
Methoxychlor	83.3	96.8	ug/kg	116	SW846 8081A
Endosulfan sulfate	16.7	18.1	ug/kg	108	SW846 8081A
Endrin ketone	16.7	20.1	ug/kg	121	SW846 8081A
		PERCENT	RECOVERY		
SURROGATE		RECOVERY	LIMITS		
Decachlorobiphenyl		88	(55 - 130)		
Tetrachloro-m-xylene		84	(70 - 125)		

# NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H8NC01AC Matrix.....: SOLID

LCS Lot-Sample#: G6G030000-405

Prep Batch #...: 6184405

Dilution Factor: 1

	PERCENT	RECOVERY	
PARAMETER	RECOVERY	LIMITS	METHOD
alpha-BHC	93	(60 - 125)	SW846 8081A
gamma-BHC (Lindane)	96	(60 - 125)	SW846 8081A
Heptachlor	108	(50 - 140)	SW846 8081A
Aldrin	93	(45 - 140)	SW846 8081A
beta-BHC	116	(60 - 125)	SW846 8081A
delta-BHC	102	(55 - 130)	SW846 8081A
Heptachlor epoxide	96	(65 - 130)	SW846 8081A
Endosulfan I	96	(15 - 135)	SW846 8081A
gamma-Chlordane	99	(65 - 125)	SW846 8081A
alpha-Chlordane	98	(65 - 120)	SW846 8081A
4,4'-DDE	101	(70 - 125)	SW846 8081A
Dieldrin	98	(65 - 125)	SW846 8081A
Endrin	114	(60 - 135)	SW846 8081A
4,4'-DDD	107	(30 - 135)	SW846 8081A
Endosulfan II	101	(35 - 140)	SW846 8081A
4,4'-DDT	110	(45 - 140)	SW846 8081A
Endrin aldehyde	76	(35 - 145)	SW846 8081A
Methoxychlor	116	(55 - 145)	SW846 8081A
Endosulfan sulfate	108	(60 - 135)	SW846 8081A
Endrin ketone	121	(60 - 135)	SW846 8081A
		PERCENT	RECOVERY
SURROGATE		RECOVERY	LIMITS
Decachlorobiphenyl		88	(55 - 130)
Tetrachloro-m-xylene		84	(70 - 125)
			•

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H9EVP1AC-LCS Matrix.....: SOLID

LCS Lot-Sample#: G6G160000-482 H9EVP1AD-LCSD

Prep Batch #...: 6197482

Dilution Factor: 1

	SPIKE	MEASURED	)	PERCENT		
PARAMETER	AMOUNT	TUUOMA	UNITS	RECOVERY	RPD	METHOD
alpha-BHC	8.33	8.37	ug/kg	101		SW846 8081A
	8.33	8.21	ug/kg	99	2.0	SW846 8081A
gamma-BHC (Lindane)	8.33	8.65	ug/kg	104		SW846 8081A
	8.33	8.50	ug/kg	102	1.7	SW846 8081A
Heptachlor	8.33	9.84	ug/kg	118		SW846 8081A
	8.33	9.48	ug/kg	114	3.8	SW846 8081A
Aldrin	8.33	8.20	ug/kg	98		SW846 8081A
	8.33	8.07	ug/kg	9'7	1.6	SW846 8081A
beta-BHC	8.33	9.89	ug/kg	119		SW846 8081A
	8.33	10.0	ug/kg	120	1.3	SW846 8081A
delta-BHC	8.33	9.56	ug/kg	115		SW846 8081A
	8.33	9.35	ug/kg	112	2.2	SW846 8081A
Heptachlor epoxide	8.33	8.42	ug/kg	101		SW846 8081A
	8.33	8.30	ug/kg	100	1.4	SW846 8081A
Endosulfan I	8.33	8.60	ug/kg	103		SW846 8081A
	8.33	8.55	ug/kg	103	0.58	SW846 8081A
gamma-Chlordane	8.33	8.30	ug/kg	100		SW846 8081A
	8.33	8.22	ug/kg	99	1.0	SW846 8081A
alpha-Chlordane	8.33	8.61	ug/kg	103		SW846 8081A
	8.33	8.51	ug/kg	102	1.1	SW846 8081A
4,4'-DDE	16.7	17.2	ug/kg	103		SW846 8081A
	16.7	16.9	ug/kg	101	1.9	SW846 8081A
Dieldrin	16.7	17.1	ug/kg	102		SW846 8081A
	16.7	16.9	ug/kg	101	1.5	SW846 8081A
Endrin	16.7	19.6	ug/kg	117		SW846 8081A
	16.7	19.1	ug/kg	114	2.5	SW846 8081A
4,4'-DDD	16.7	18.7	ug/kg	112		SW846 8081A
	16.7	18.4	ug/kg	110	1.6	SW846 8081A
Endosulfan II	16.7	17.8	ug/kg	107		SW846 8081A
	16.7	17.3	ug/kg	104	2.8	SW846 8081A
4,4'-DDT	16.7	19.4	ug/kg	116		SW846 8081A
	16.7	19.0	ug/kg	114	2.0	SW846 8081A
Endrin aldehyde	16.7	13.6	ug/kg	81		SW846 8081.A
	16.7	12.8	ug/kg	77	5.4	SW846 8081A
Methoxychlor	83.3	106	ug/kg	<b>12</b> 7		SW846 8081A
	83.3	103	ug/kg	124	2.5	SW846 8081A
Endosulfan sulfate	16.7	19.5	ug/kg	117		SW846 8081A
	16.7	<b>19.</b> 3	ug/kg	116	1.3	SW846 8081A
Endrin ketone	16.7	18.1	ug/kg	108		SW846 8081A
	16.7	18.2	ug/kg	109	0.36	SW846 8081A

# LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H9EVP1AC-LCS Matrix..... SOLID LCS Lot-Sample#: G6G160000-482 H9EVP1AD-LCSD

PERCENT RECOVERY RECOVERY SURROGATE: LIMITS Decachlorobiphenyl 90 (55 - 130)92 (55 - 130)Tetrachloro-m-xylene 99 (70 - 125)97 (70 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H9EVP1AC-LCS Matrix.....: SOLID

LCS Lot-Sample#: G6G160000-482 H9EVP1AD-LCSD

**Prep Date....:** 07/17/06 **Analysis Date..:** 07/20/06

Prep Batch #...: 6197482

Dilution Factor: 1

	PERCENT	RECOVERY		RPD	
PARAMETER	RECOVERY	LIMITS	RPD	LIMITS	METHOD
alpha-BHC	101	(60 - 125)			SW846 8081A
	99	(60 - 125)	2.0	(0-30)	SW846 8081A
gamma-BHC (Lindane)	104	(60 - 125)			SW846 8081A
	102	(60 - 125)	1.7	(0-30)	SW846 8081A
Heptachlor	118	(50 - 140)			SW846 8081A
	114	(50 - 140)	3.8	(0-30)	SW846 8081A
Aldrin	98	(45 - 140)			SW846 8081A
	97	(45 - 140)	1.6	(0-30)	SW846 8081A
beta-BHC	119	(60 - 125)			SW846 8081A
	120	(60 - 125)	1.3	(0~30)	SW846 8081A
delta-BHC	115	(55 ~ 130)			SW846 8081A
	112	(55 - 130)	2.2	(0-30)	SW846 8081A
Heptachlor epoxide	101	(65 - 130)			SW846 8081A
	100	(65 - 130)	1.4	(0-30)	SW846 8081A
Endosulfan I	103	(15 - 135)			SW846 8081A
	103	(15 ~ 135)	0.58	(0-30)	SW846 8081A
gamma-Chlordane	100	(65 - 125)			SW846 8081A
	99	(65 - 125)	1.0	(0-30)	SW846 8081A
alpha-Chlordane	103	(65 - 1.20)			SW846 8081A
	102	(65 - 120)	1.1	(0-30)	SW846 8081A
4,4'-DDE	103	(70 - 125)			SW846 8081A
	101		1.9	(0-30)	SW846 8081A
Dieldrin	102	(65 - 125)			SW846 8081A
	101		1.5	(0-30)	SW846 8081A
Endrin	117	(60 - 135)			SW846 8081A
	114		2.5	(0-30)	SW846 8081A
4,4'-DDD	112	(30 - 135)			SW846 8081A
	110		1.6	(0-30)	SW846 8081A
Endosulfan II	107	(35 - 140)			SW846 8081A
	104	•	2.8	(0-30)	SW846 8081A
4,4'-DDT	116	(45 - 140)			SW846 8081A
	114		2.0	(0-30)	SW846 8081A
Endrin aldehyde	81	(35 - 145)			SW846 8081A
	77		5.4	(0-30)	SW846 8081A
Methoxychlor	127	(55 - 145)			SW846 8081A
	124		2.5	(0-30)	SW846 8081A
Endosulfan sulfate	117	(60 - 135)			SW846 8081A
	116		1.3	(0-30)	SW846 8081A
Endrin ketone	108	(60 - 135)			SW846 8081A
	1.09	(60 - 135)	0.36	(0-30)	SW846 8081A

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H9EVP1AC-LCS Matrix...... SOLID

LCS Lot-Sample#: G6G160000-482 H9EVP1AD-LCSD

	PERCENT	RECOVERY
SURROGATE	RECOVERY	LIMITS
Decachlorobiphenyl	90	(55 - 130)
	92	(55 - 130)
Tetrachloro-m-xylene	99	(70 - 125)
	97	(70 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H9MH51AC-LCS Matrix......: SOLID

LCS Lot-Sample#: G6G200000-303 H9MH51AD-LCSD

**Prep Date....:** 07/20/06 **Analysis Date..:** 07/21/06

**Prep Batch #...:** 6201303

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
alpha-BHC	8.33	7.69	ug/kg	92		SW846 8081A
	8.33	8.23	ug/kg	99	6.8	SW846 8081A
gamma-BHC (Lindane)	8.33	7.98	ug/kg	96		SW846 8081A
	8.33	8.46	ug/kg	102	5.9	SW846 8081A
Heptachlor	8.33	8.37	ug/kg	100		SW846 8081A
	8.33	8.75	ug/kg	105	4.4	SW846 8081A
Aldrin	8.33	7.63	ug/kg	92		SW846 8081A
	8.33	8.10	ug/kg	97	6.0	SW846 8081A
beta-BHC	8.33	8.66	ug/kg	104		SW846 8081A
	8.33	9.19	ug/kg	110	5.9	SW846 8081A
delta-BHC	8.33	8.48	ug/kg	102		SW846 8081A
	8.33	8.99	ug/kg	108	5.8	SW846 8081A
Heptachlor epoxide	8.33	7.78	ug/kg	93		SW846 8081A
	8.33	8.18	ug/kg	98	5.0	SW846 8081A
Endosulfan I	8.33	7.83	ug/kg	94		SW846 8081A
	8.33	8.21	ug/kg	99	4.7	SW846 8081A
gamma-Chlordane	8.33	7.83	ug/kg	94		SW846 8081A
	8.33	8.25	ug/kg	99	5.2	SW846 8081A
alpha-Chlordane	8.33	8.01	ug/kg	96		SW846 8081A
	8.33	8.42	ug/kg	101	5.0	SW846 8081A
4,4'-DDE	16.7	16.4	ug/kg	98		SW846 8081A
	16.7	17.3	ug/kg	104	5.3	SW846 8081A
Dieldrin	16.7	16.0	ug/kg	96		SW846 8081A
	16.7	16.8	ug/kg	101	4.8	SW846 8081A
Endrin	16.7	16.9	ug/kg	101		SW846 8081A
	16.7	17.8	ug/kg	107	5.4	SW846 8081A
4,4'-DDD	16.7	17.1	ug/kg	102		SW846 8081A
	16.7	17.9	ug/kg	107	4.8	SW846 8081A
Endosulfan II	16.7	17.4	ug/kg	104		SW846 8081A
	16.7	18.3	ug/kg	109	4.8	SW846 8081A
4,4'-DDT	16.7	17.7	ug/kg	106		SW846 8081A
	16.7	18.7	ug/kg	112	5.5	SW846 8081A
Endrin aldehyde	16.7	10.5	ug/kg	63		SW846 8081A
	16.7	10.5	ug/kg	63	0.42	SW846 8081A
Methoxychlor	83.3	81.9	ug/kg	98		SW846 8081A
	83.3	86.7	ug/kg	104	5.8	SW846 8081A
Endosulfan sulfate	16.7	16.9	ug/kg	101		SW846 8081A
	16.7	17.8	ug/kg	106	4.8	SW846 8081A
Endrin ketone	16.7	16.8	ug/kg	101		SW846 8081A
	16.7	17.6	ug/kg	105	4.2	SW846 8081A

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	100	(55 - 130)		
	103	(55 - 130)		
Tetrachloro-m-xylene	88	(70 - 125)		
	91	(70 - 125)		

NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H9MH51AC-LCS Matrix.....: SOLID

LCS Lot-Sample#: G6G200000-303 H9MH51AD-LCSD

Prep Date....: 07/20/06 Analysis Date..: 07/21/06

Prep Batch #...: 6201303

Dilution Factor: 1

PARAMETER   RECOVERY   LIMITS   REPU   LIMITS   SWEAK   BOBIA     Page   (60 - 125)   6.8		PERCENT	RECOVERY	RPD	
Section	PARAMETER	RECOVERY	LIMITS RPD	LIMITS	METHOD
gamma-BHC (Lindane)         99         (60 - 125)         5.8         (0-30)         SW846 8081A           Heptachlor         100         (60 - 125)         5.9         (0-30)         SW846 8081A           Heptachlor         100         (50 - 140)         -         SW846 8081A           Aldrin         92         (45 - 140)         -         SW846 8081A           Aldrin         97         (45 - 140)         6.0         (0-30)         SW846 8081A           beta-BHC         104         (60 - 125)         5.9         (0-30)         SW846 8081A           delta-BHC         102         (55 - 130)         -         SW846 8081A           delta-BHC         102         (55 - 130)         -         SW846 8081A           delta-BHC         102         (55 - 130)         -         SW846 8081A           Heptachlor epoxide         93         (65 - 130)         -         SW846 8081A           Heptachlor epoxide         93         (65 - 130)         -         SW846 8081A           Endosulfan I         94         (15 - 135)         -         (0-30)         SW846 8081A           Endosulfan I         94         (65 - 125)         -         (0-30)         SW846 8081A	alpha-BHC		(60 - 125)		SW846 8081A
Heptachlor	<del>-</del>	99	(60 - 125) 6.8	(0-30)	SW846 8081A
Heptachlor   100   (50 - 140)   4.4   (0-30)   50846   8081A   105   (55 - 140)   4.4   (0-30)   50846   8081A   808	gamma-BHC (Lindane)	96	(60 - 125)		SW846 8081A
105   (50 - 140)   4.4   (0-30)   SW846   8081A   80		102	(60 - 125) 5.9	(0-30)	SW846 8081A
Aldrin 92 (45 - 140)	Heptachlor	100	(50 - 140)		SW846 8081A
Peta		105	(50 - 140) 4.4	(0-30)	SW846 8081A
Deta-BHC	Aldrin	92	(45 - 140)		SW846 8081A
delta-BHC         110         (60 - 125)         5.9         (0-30)         SW846         8081A           delta-BHC         102         (555 - 130)         5.8         (0-30)         SW846         8081A           Heptachlor epoxide         93         (65 - 130)         5.0         (0-30)         SW846         8081A           Endosulfan I         94         (15 - 135)         4.7         (0-30)         SW846         8081A           gamma-Chlordane         94         (15 - 135)         4.7         (0-30)         SW846         8081A           gamma-Chlordane         94         (65 - 125)         5.2         (0-30)         SW846         8081A           alpha-Chlordane         94         (65 - 125)         5.2         (0-30)         SW846         8081A           alpha-Chlordane         96         (65 - 120)         5.0         (0-30)         SW846         8081A           4,4'-DDE         98         (70 - 125)         5.3         (0-30)         SW846         8081A           Endrin         101         (65 - 125)         5.3         (0-30)         SW846         8081A           Endrin         101         (60 - 135)         4.8         (0-30)         SW846		97	(45 - 140) 6.0	(0-30)	SW846 8081A
Company   Comp	beta-BHC	104	(60 - 125)		SW846 8081A
Heptachlor epoxide 93 (65 - 130) 5.8 (0-30) SW846 8081A 98 (65 - 130) 5.0 (0-30) SW846 8081A 98 (65 - 130) 5.0 (0-30) SW846 8081A 6081 605 130 5.0 (0-30) SW846 8081A 605 130 5.0 (0-30) SW846 8081A 605 135 5.0 (0-30) SW846 8081A 605 135 5.0 SW846		110	(60 - 125) 5.9	(0-30)	SW846 8081A
Heptachlor epoxide	delta-BHC	102	(55 ~ 130)		SW846 8081A
## British		108	(55 - 130) 5.8	(0-30)	SW846 8081A
Endosulfan I 94 (15 - 135)	Heptachlor epoxide	93	(65 - 130)		SW846 8081A
gamma-Chlordane         99         (15 - 135)         4.7         (0-30)         SW846         8081A           gamma-Chlordane         94         (65 - 125)         5.2         (0-30)         SW846         8081A           alpha-Chlordane         96         (65 - 120)         5.0         (0-30)         SW846         8081A           4,4'-DDE         98         (70 - 125)         5.3         (0-30)         SW846         8081A           Dieldrin         96         (65 - 125)         5.3         (0-30)         SW846         8081A           Dieldrin         96         (65 - 125)         5.3         (0-30)         SW846         8081A           Endrin         101         (665 - 125)         5.3         (0-30)         SW846         8081A           Endrin         101         (665 - 125)         4.8         (0-30)         SW846         8081A           4,4'-DDD         102         (30 - 135)         5.4         (0-30)         SW846         8081A           Endosulfan II         104         (35 - 140)         5         50 - 30)         SW846         8081A           Endrin aldehyde         63         (35 - 145)         5.5         (0-30)         SW846         8081A<		98	(65 - 130) 5.0	(0-30)	SW846 8081A
gamma-Chlordane         94         (65 - 125)         5.2         (0-30)         SW846         8081A           alpha-Chlordane         96         (65 - 120)         5.2         (0-30)         SW846         8081A           4,4'-DDE         98         (70 - 125)         SW846         8081A           4,4'-DDE         98         (70 - 125)         SW846         8081A           Dieldrin         96         (65 - 125)         SW846         8081A           Endrin         101         (65 - 125)         4.8         (0-30)         SW846         8081A           Endrin         101         (60 - 135)         5.4         (0-30)         SW846         8081A           4,4'-DDD         102         (30 - 135)         5.4         (0-30)         SW846         8081A           Endosulfan II         104         (35 - 140)         SW846         8081A           4,4'-DDT         106         (45 - 140)         SW846         8081A           Endrin aldehyde         63         (35 - 145)         SW846         8081A           Methoxychlor         98         (55 - 145)         SW846         8081A           Methoxychlor         98         (55 - 145)         SW846 <t< td=""><td>Endosulfan I</td><td>94</td><td>(15 - 135)</td><td></td><td>SW846 8081A</td></t<>	Endosulfan I	94	(15 - 135)		SW846 8081A
99		99	(15 - 135) 4.7	(0-30)	SW846 8081A
alpha-Chlordane       96       (65 - 120)       5.0       (0-30)       SW846       8081A         4,4'-DDE       98       (70 - 125)       SW846       8081A         Dieldrin       96       (65 - 125)       5.3       (0-30)       SW846       8081A         Dieldrin       96       (65 - 125)       5.3       (0-30)       SW846       8081A         Endrin       101       (65 - 125)       4.8       (0-30)       SW846       8081A         Endrin       101       (60 - 135)       SW846       8081A         Endrin       107       (60 - 135)       SW846       8081A         4,4'-DDD       102       (30 - 135)       SW846       8081A         Endosulfan II       104       (35 - 140)       4.8       (0-30)       SW846       8081A         4,4'-DDT       106       (45 - 140)       SW846       8081A       SW846       8081A         4,4'-DDT       106       (45 - 140)       SW846       8081A       SW846       8081A         Endrin aldehyde       63       (35 - 145)       SW846       8081A         Methoxychlor       98       (55 - 145)       SW846       8081A         Endosulfan sulfate	gamma-Chlordane	94	(65 - 125)		SW846 8081A
101 (65 - 120) 5.0 (0-30) SW846 8081A 4,4'-DDE 98 (70 - 125) 5.3 (0-30) SW846 8081A Dieldrin 96 (65 - 125) 5.3 (0-30) SW846 8081A Endrin 101 (65 - 125) 4.8 (0-30) SW846 8081A  101 (66 - 125) 5.4 (0-30) SW846 8081A  Endrin 101 (60 - 135) 5.4 (0-30) SW846 8081A  4,4'-DDD 102 (30 - 135) 5.4 (0-30) SW846 8081A  Endosulfan II 104 (35 - 140) SW846 8081A  4,4'-DDT 106 (45 - 140) SW846 8081A  4,4'-DDT 106 (45 - 140) SW846 8081A  Endrin aldehyde 63 (35 - 145) SW846 8081A  Endrin aldehyde 63 (35 - 145) SW846 8081A  Methoxychlor 98 (55 - 145) SW846 8081A  Endosulfan sulfate 101 (60 - 135) SW846 8081A  Endrin ketone 101 (60 - 135) SW846 8081A  Endrin ketone 5W846 8081A  SW846 8081A		99	(65 - 125) 5.2	(0-30)	SW846 8081A
4,4'-DDE       98       (70 - 125)       5.3       (0-30)       SW846       8081A         Dieldrin       96       (65 - 125)       SW846       8081A         Endrin       101       (65 - 125)       4.8       (0-30)       SW846       8081A         Endrin       101       (60 - 135)       5.4       (0-30)       SW846       8081A         4,4'-DDD       102       (30 - 135)       SW846       8081A         Endosulfan II       104       (35 - 140)       SW846       8081A         4,4'-DDT       109       (35 - 140)       SW846       8081A         4,4'-DDT       106       (45 - 140)       SW846       8081A         Endrin aldehyde       63       (35 - 145)       SW846       8081A         Methoxychlor       98       (55 - 145)       SW846       8081A         Endosulfan sulfate       101       (60 - 135)       SW846       8081A         Endrin ketone       101       (60 - 135)       SW846       8081A         Endrin ketone       101       (60 - 135)       SW846       8081A	alpha-Chlordane	96	(65 - 120)		SW846 8081A
Dieldrin 96 (65 - 125) 5.3 (0-30) SW846 8081A Dieldrin 96 (65 - 125) 5.3 (0-30) SW846 8081A Endrin 101 (65 - 125) 4.8 (0-30) SW846 8081A  Endrin 101 (60 - 135) 5.4 (0-30) SW846 8081A  4,4'-DDD 102 (30 - 135) 5.4 (0-30) SW846 8081A  Endosulfan II 104 (35 - 140) 5.5 (0-30) SW846 8081A  4,4'-DDT 106 (45 - 140) 5.5 (0-30) SW846 8081A  Endrin aldehyde 63 (35 - 145) 5.5 (0-30) SW846 8081A  Endrin aldehyde 63 (35 - 145) 5.8 (0-30) SW846 8081A  Methoxychlor 98 (55 - 145) 5.8 (0-30) SW846 8081A  Endosulfan sulfate 101 (60 - 135) 5.8 (0-30) SW846 8081A  Endrin ketone 101 (60 - 135) 5.8 (0-30) SW846 8081A		101	<b>(65 - 120) 5.</b> 0	(0-30)	SW846 8081A
Dieldrin   96   (65 - 125)   4.8   (0-30)   SW846   8081A   101   (65 - 125)   4.8   (0-30)   SW846   8081A   101   (60 - 135)   SW846   8081A   107   (60 - 135)   5.4   (0-30)   SW846   8081A   107   (60 - 135)   5.4   (0-30)   SW846   8081A   107   (30 - 135)   4.8   (0-30)   SW846   8081A   107   (30 - 135)   4.8   (0-30)   SW846   8081A   109   (35 - 140)   SW846   8081A   109   (35 - 140)   5.5   (0-30)   SW846   8081A   112   (45 - 145)   5.8   (0-30)   SW846   8081A   104   (55 - 145)   5.8   (0-30)   SW846   8081A   104   (55 - 145)   5.8   (0-30)   SW846   8081A   104   104   (55 - 145)   5.8   (0-30)   SW846   8081A   106   (60 - 135)   5.8   (0-30)   SW846   106   (0-30)   5.8   (0-30)   5.8   (0-30)   5.8   (0-30)   5.8	4,4'-DDE	98	(70 - 125)		SW846 8081A
Endrin 101 (65 - 125) 4.8 (0-30) SW846 8081A  101 (60 - 135) 5.4 (0-30) SW846 8081A  4,4'-DDD 102 (30 - 135) 5.4 (0-30) SW846 8081A  107 (30 - 135) 5.4 (0-30) SW846 8081A  107 (30 - 135) 4.8 (0-30) SW846 8081A  Endosulfan II 104 (35 - 140) SW846 8081A  4,4'-DDT 106 (45 - 140) SW846 8081A  Endrin aldehyde 63 (35 - 145) SW846 8081A  Endrin aldehyde 63 (35 - 145) SW846 8081A  Methoxychlor 98 (55 - 145) SW846 8081A  Endosulfan sulfate 101 (60 - 135) SW846 8081A  Endrin ketone 101 (60 - 135) SW846 8081A  Endrin ketone 5W846 8081A		104	<b>(70 - 125) 5.</b> 3	(0-30)	SW846 8081A
Endrin       101       (60 - 135)       SW846       8081A         4,4'-DDD       102       (30 - 135)       5.4       (0-30)       SW846       8081A         4,4'-DDD       102       (30 - 135)       4.8       (0-30)       SW846       8081A         Endosulfan II       104       (35 - 140)       SW846       8081A         4,4'-DDT       106       (45 - 140)       SW846       8081A         Endrin aldehyde       63       (35 - 145)       SW846       8081A         Methoxychlor       98       (55 - 145)       SW846       8081A         Endosulfan sulfate       101       (60 - 135)       5.8       (0-30)       SW846       8081A         Endrin ketone       101       (60 - 135)       4.8       (0-30)       SW846       8081A         SW846       8081A       SW846       8081A       SW846       8081A	Dieldrin	96	(65 - 125)		SW846 8081A
107 (60 - 135) 5.4 (0-30) SW846 8081A 4,4'-DDD 102 (30 - 135) 4.8 (0-30) SW846 8081A 107 (30 - 135) 4.8 (0-30) SW846 8081A  Endosulfan II 104 (35 - 140) 5.5 (0-30) SW846 8081A 109 (35 - 140) 5.5 (0-30) SW846 8081A 112 (45 - 140) 5.5 (0-30) SW846 8081A  Endrin aldehyde 63 (35 - 145) SW846 8081A  Methoxychlor 98 (55 - 145) 5.8 (0-30) SW846 8081A  Endosulfan sulfate 101 (60 - 135) 5.8 (0-30) SW846 8081A  Endrin ketone 101 (60 - 135) 5.8 SW846 8081A  Endrin ketone 5W846 8081A		101	(65 - 125) 4.8	(0-30)	SW846 8081A
4,4'-DDD       102       (30 - 135)       SW846       8081A         107       (30 - 135)       4.8       (0-30)       SW846       8081A         Endosulfan II       104       (35 - 140)       4.8       (0-30)       SW846       8081A         4,4'-DDT       106       (45 - 140)       5.5       (0-30)       SW846       8081A         4,4'-DDT       106       (45 - 140)       5.5       (0-30)       SW846       8081A         Endrin aldehyde       63       (35 - 145)       5.5       (0-30)       SW846       8081A         Methoxychlor       98       (55 - 145)       5.8       (0-30)       SW846       8081A         Endosulfan sulfate       104       (55 - 145)       5.8       (0-30)       SW846       8081A         Endrin ketone       101       (60 - 135)       4.8       (0-30)       SW846       8081A         Endrin ketone       101       (60 - 135)       4.8       (0-30)       SW846       8081A	Endrin	101	•		SW846 8081A
Endosulfan II 104 (35 - 140) SW846 8081A  Endosulfan II 104 (35 - 140) 4.8 (0-30) SW846 8081A  4,4'-DDT 106 (45 - 140) 5.5 (0-30) SW846 8081A  Endrin aldehyde 63 (35 - 145) SW846 8081A  Methoxychlor 98 (55 - 145) 5.8 (0-30) SW846 8081A  Endosulfan sulfate 101 (60 - 135) SW846 8081A  Endrin ketone 101 (60 - 135) SW846 8081A  Endrin ketone 500 SW846 8081A  SW846 8081A  SW846 8081A  SW846 8081A  SW846 8081A  SW846 8081A		107		(0-30)	SW846 8081A
Endosulfan II 104 (35 - 140)	4,4'-DDD	102			
109 (35 - 140) 4.8 (0-30) SW846 8081A 4,4'-DDT 106 (45 - 140) 5.5 (0-30) SW846 8081A  Endrin aldehyde 63 (35 - 145) 5.5 (0-30) SW846 8081A  Methoxychlor 98 (55 - 145) 5.8 (0-30) SW846 8081A  Endosulfan sulfate 101 (60 - 135) 5.8 (0-30) SW846 8081A  Endrin ketone 101 (60 - 135) 5.8 (0-30) SW846 8081A		107		(0-30)	SW846 8081A
4,4'-DDT       106       (45 - 140)       5.5       (0-30)       SW846 8081A         Endrin aldehyde       63       (35 - 145)       SW846 8081A         Methoxychlor       98       (55 - 145)       SW846 8081A         Endosulfan sulfate       101       (60 - 135)       5.8       (0-30)       SW846 8081A         Endrin ketone       101       (60 - 135)       4.8       (0-30)       SW846 8081A         Endrin ketone       101       (60 - 135)       4.8       (0-30)       SW846 8081A	Endosulfan II	104			SW846 8081A
112		109		(0-30)	
Endrin aldehyde 63 (35 - 145) SW846 8081A 63 (35 - 145) 0.42 (0-30) SW846 8081A Methoxychlor 98 (55 - 145) 5.8 (0-30) SW846 8081A 104 (55 - 145) 5.8 (0-30) SW846 8081A Endosulfan sulfate 101 (60 - 135) SW846 8081A Endrin ketone 101 (60 - 135) 4.8 (0-30) SW846 8081A	4,4'-DDT	106			SW846 8081A
63       (35 - 145)       0.42       (0-30)       SW846       8081A         Methoxychlor       98       (55 - 145)       SW846       8081A         104       (55 - 145)       5.8       (0-30)       SW846       8081A         Endosulfan sulfate       101       (60 - 135)       SW846       8081A         Endrin ketone       101       (60 - 135)       SW846       8081A				(0-30)	SW846 8081A
Methoxychlor       98       (55 - 145)       5.8       (0-30)       SW846       8081A         Endosulfan sulfate       101       (60 - 135)       SW846       8081A         Endrin ketone       101       (60 - 135)       4.8       (0-30)       SW846       8081A         Endrin ketone       101       (60 - 135)       SW846       8081A	Endrin aldehyde				SW846 8081A
104 (55 - 145) 5.8 (0-30) SW846 8081A  Endosulfan sulfate 101 (60 - 135) SW846 8081A  106 (60 - 135) 4.8 (0-30) SW846 8081A  Endrin ketone 101 (60 - 135) SW846 8081A		63		2 (0-30)	SW846 8081A
Endosulfan sulfate 101 (60 - 135) SW846 8081A 106 (60 - 135) 4.8 (0-30) SW846 8081A Endrin ketone 101 (60 - 135) SW846 8081A	Methoxychlor	98	(55 - 145)		SW846 8081A
106       (60 - 135)       4.8       (0-30)       SW846       8081A         Endrin ketone       101       (60 - 135)       SW846       8081A		104	<b>(55 - 145) 5.8</b>	(0-30)	SW846 8081A
Endrin ketone 101 (60 - 135) SW846 8081A	Endosulfan sulfate	101	(60 - 135)		SW846 8081A
		106	<b>(60 - 135) 4.8</b>	(0-30)	SW846 8081A
105 (60 - 135) 4.2 (0-30) SW846 8081A	Endrin ketone	101	(60 - 135)		SW846 8081A
		105	(60 - 135) 4.2	(0-30)	SW846 8081A

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H9MH51AC-LCS Matrix.....: SOLID

LCS Lot-Sample#: G6G200000-303 H9MH51AD-LCSD

	PERCENT	RECOVERY
SURROGATE	RECOVERY	LIMITS
Decachlorobiphenyl	100	(55 - 130)
	103	(55 ~ 130)
Tetrachloro-m-xylene	88	(70 - 125)
	91	(70 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# MATRIX SPIKE SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot: #...: G6F230422 Work Order #...: H750R1AE-MS Matrix.....: SOLID

**MS Lot-Sample #:** G6F230422-044 H750R1AF-MSD

 Date Sampled...: 06/22/06
 Date Received..: 06/23/06

 Prep Date.....: 07/05/06
 Analysis Date..: 07/14/06

**Prep Batch #...:** 6184405

Dilution Factor: 5 % Moisture....: 25

	SAMPLE	SPIKE	MEASRD		PERCNT		
PARAMETER	AMOUNT	TMA	TRUOMA	UNITS	RECVRY	RPD	METHOD
alpha-BHC	ND	11.1		ug/kg	0.0		SW846 8081A
	Qu	alifiers:	MSA				
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
	~	alifiers:	MSA	_			
gamma-BHC (Lindane)	ND	11.1		ug/kg	0.0		SW846 8081A
		alifiers:	MSA				
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		alifiers:	MSA				
Heptachlor e	ND	11.1		ug/kg	0.0		SW846 8081A
	~	alifiers:	MSA				
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		alifiers:	MSA	•-			
Aldrin	ND	11.1		ug/kg	0.0		SW846 8081A
		alifiers:	MSA	/5			
	ND	11.1		ug/kg	0 - 0	0.0	SW846 8081A
1		alifiers:	MSA	/-			
beta-BHC	ND	11.1	1602	ug/kg	0.0		SW846 8081A
	~ * *	alifiers:	MSA	/7	4.5		
	ND	11.1	1.03	ug/kg	0.0	0.0	SW846 8081A
1.1. pro	-	alifiers:	MSA	/1			
delta-BHC	ND	11.1		ug/kg	0.0		SW846 8081A
		alifiers:	MSA	/1 .			GT70.4.5 0.0.0.1.3
	ND O	11.1	MOR	ug/kg	0.0	0.0	SW846 8081A
TI		alifiers:	MSA		0.0		GUOAC GOOTA
Heptachlor epoxide	ND O	11.1	NGC 7	ug/kg	0.0		SW846 8081A
	ND Qua	alifiers: 11.1	MSA		0.0	0 0	OWO A C O O O O O O O
		alifiers:	NOR	ug/kg	0.0	0.0	SW846 8081A
Endosulfan I	Qua <b>ND</b>	11.1	MOA	na/ka	0.0		CHOAC ONGTA
PHOOSUITAN I		alifiers:	MCA	ug/kg	0.0		SW846 8081A
	ND Qua	11.1	MSA	ug/kg	0.0	0.0	SW846 8081A
		alifiers:	MCA	ug/kg	0.0	0.0	5W846 8U8LA
gamma-Chlordane	1.9	11.1	Man	ug/kg	0.0		SW846 8081A
gaimia-chrordane		alifiers:	MCA	ug/kg	0.0		5W046 8U8LA
	1.9	11.1	MON	ug/kg	0.0	0.0	SW846 8081A
		alifiers:	MCA	ag/ vg	v.v	U.U	PHO40 ONOTH
alpha-Chlordane	9.8		NON	ng/kg	0.0		CMOAC ODOTA
arpna-curordane		11.1 alifiers:	MCD	ug/kg	0.0		SW846 8081A
	9.8	11.1	MOH	uar/lear	0.0	0 0	CMOAC ODDIA
		alifiers:	MCD	ug/kg	0.0	0.0	SW846 8081A
	Qua	aririers:	MOA				

#### MATRIX SPIKE SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H750R1AE-MS Matrix.....: SOLID

MS Lot-Sample #: G6F230422-044

H750R1AF-MSD

	SAM	PLE	SPIKE	MEASRD		PERCNT			
PARAMETER	AMO	TNU	AMT	AMOUNT	UNITS	RECVRY	RPD	METHO	D
4 41 7077	•				,,				
4,4'-DDE	ND	<b>0</b>	22.3	1407	ug/kg	0.0		SW846	8081A
	ND	Qua	lifiers:	MSA		0.0		057046	00017
	ИВ	0,,,	22.3 lifiers:	አፈር፣ 7\	ug/kg	0.0	0.0	SW846	8081A
Dieldrin	ND	Qua.	22.3	MSA	ug/kg	0.0		CHOAC	00013
	М	Oua	lifiers:	MCΣ	ug/ ng	0.0		9 <b>n</b> 040	8081A
	ND	Qua.	22.3	HOA	ug/kg	0.0	0.0	CMOA6	8081A
		Oua	lifiers:	MSA	ug/ ng	0.0	0.0	DHOZO	OUGLA
Endrin	ND	*****	22.3		ug/kg	0.0		SW846	8081A
		Oua:	lifiers:	MSA	-575			511010	OUGLII
	ND	~	22.3		ug/kg	0.0	0.0	SW846	8081A
		Qua:	lifiers:	MSA	<b>J</b> , J				
4,4'-DDD	ND		22.3		ug/kg	0.0		SW846	8081A
		Qua:	lifiers:	MSA					
	ND		22.3		ug/kg	0.0	0.0	SW846	8081A
		Qua	lifiers:	MSA					
Endosulfan II	ND		22.3		ug/kg	0.0		SW846	A1808
		Qua.	lifiers:	MSA					
	ND		22.3		ug/kg	0.0	0.0	SW846	8081A
		Qua.	lifiers:	MSA					
4,4'-DDT	ND		22.3		ug/kg	0.0		SW846	8081A
		Qua.	lifiers:	MSA	•-				
	ND		22.3		ug/kg	0.0	0.0	SW846	A1808
m-3-4 13-13-		Qua.	Lifiers:	MSA					
Endrin aldehyde	ND	0	22.3	MC 7	ug/kg	0.0		SW846	8081A
	ND	Qua.	lifiers:	MSA	*** /1-~	^ ^		0570.4.6	00017
	IND	0115]	lifiers:	MCA	ug/kg	0.0	0.0	SW846	808TW
Methoxychlor	ND	Qua.	111	rapa.	ug/kg	0.0		SW846	00013
	112	Oual	Lifiers:	MSA	ug/ ng	0.0		DHO40	OUGIA
	ND	* ****	111		ug/kg	0.0	0.0	SW846	8081A
		Qual	lifiers:	MSA				2	00011
Endosulfan sulfate	ND		22.3		ug/kg	0.0		SW846	8081A
		Qual	ifiers:	MSA					
	ND		22.3		ug/kg	0.0	0.0	SW846	8081A
		Qual	ifiers:	MSA					
Endrin ketone	ND		22.3		ug/kg	0.0		SW846	8081A
		Qual	ifiers:	MSA					
	ND		22.3		ug/kg	0.0	0.0	SW846	8081A
		Qual	ifiers:	MSA					

#### MATRIX SPIKE SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H750R1AE-MS Matrix....: SOLID
MS Lot-Sample #: G6F230422-044 H750R1AF-MSD

 SURROGATE
 RECOVERY
 LIMITS

 Decachlorobiphenyl
 0.0 SRD
 (55 - 130)

 0.0 SRD
 (55 - 130)

 Tetrachloro-m-xylene
 0.0 SRD
 (70 - 125)

 0.0 SRD
 (70 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MSA The recovery and RPD were not calculated because the sample was diluted beyond the ability to quantitate a recovery.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

#### MATRIX SPIKE SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: G6F230422 Work Order #...: H750R1AE-MS Matrix...... SOLID

**MS Lot-Sample #:** G6F230422-044 H750R1AF-MSD

Date Sampled...: 06/22/06 Date Received..: 06/23/06 Prep Date....: 07/05/06 Analysis Date..: 07/14/06

Prep Batch #...: 6184405

Dilution Factor: 5 % Moisture....: 25

PARAMETER         RECOVERY         LIMITS         RPD         LIMITS         METHOD           alpha-BHC         0.0 MSA         (60 - 125)         0.0 (0-30)         SW846 8081A           gamma-BHC (Lindane)         0.0 MSA         (60 - 125)         0.0 (0-30)         SW846 8081A           Heptachlor         0.0 MSA         (60 - 125)         0.0 (0-30)         SW846 8081A           Heptachlor         0.0 MSA         (50 - 140)         0.0 (0-30)         SW846 8081A           Aldrin         0.0 MSA         (45 - 140)         0.0 (0-30)         SW846 8081A           0.0 MSA         (45 - 140)         0.0 (0-30)         SW846 8081A
0.0 MSA (60 - 125) 0.0 (0-30) SW846 8081A gamma-BHC (Lindane) 0.0 MSA (60 - 125) 0.0 (0-30) SW846 8081A 0.0 MSA (60 - 125) 0.0 (0-30) SW846 8081A Heptachlor 0.0 MSA (50 - 140) 0.0 (0-30) SW846 8081A 0.0 MSA (50 - 140) 0.0 (0-30) SW846 8081A Aldrin 0.0 MSA (45 - 140) 0.0 (0-30) SW846 8081A 0.0 MSA (45 - 140) 0.0 (0-30) SW846 8081A
gamma-BHC (Lindane)       0.0 MSA       (60 - 125)       0.0 (0-30)       SW846 8081A         Heptachlor       0.0 MSA       (50 - 140)       5W846 8081A         0.0 MSA       (50 - 140)       0.0 (0-30)       SW846 8081A         Aldrin       0.0 MSA       (45 - 140)       0.0 (0-30)       SW846 8081A         0.0 MSA       (45 - 140)       0.0 (0-30)       SW846 8081A
0.0 MSA (60 - 125) 0.0 (0-30) SW846 8081A  Heptachlor 0.0 MSA (50 - 140) SW846 8081A  0.0 MSA (50 - 140) 0.0 (0-30) SW846 8081A  Aldrin 0.0 MSA (45 - 140) SW846 8081A  0.0 MSA (45 - 140) 0.0 (0-30) SW846 8081A
Heptachlor       0.0 MSA       (50 - 140)       SW846 8081A         0.0 MSA       (50 - 140)       0.0 (0-30)       SW846 8081A         Aldrin       0.0 MSA       (45 - 140)       SW846 8081A         0.0 MSA       (45 - 140)       0.0 (0-30)       SW846 8081A
0.0 MSA (50 - 140) 0.0 (0-30) SW846 8081A Aldrin 0.0 MSA (45 - 140) 0.0 (0-30) SW846 8081A 0.0 MSA (45 - 140) 0.0 (0-30) SW846 8081A
Aldrin 0.0 MSA (45 - 140) SW846 8081A 0.0 MSA (45 - 140) 0.0 (0-30) SW846 8081A
0.0 MSA (45 - 140) 0.0 (0-30) SW846 8081A
•
beta-BHC 0.0 MSA (60 - 125) SW846 8081A
0.0 MSA (60 - 125) 0.0 (0-30) SW846 8081A
delta-BHC 0.0 MSA (55 - 130) SW846 8081A
0.0 MSA (55 - 130) 0.0 (0-30) SW846 8081A
Heptachlor epoxide 0.0 MSA (65 - 130) SW846 8081A
0.0 MSA (65 - 130) 0.0 (0-30) SW846 8081A
Endosulfan I 0.0 MSA (15 - 135) SW846 8081A
0.0 MSA (15 - 135) 0.0 (0-30) SW846 8081A
gamma-Chlordane 0.0 MSA (65 - 125) SW846 8081A
0.0 MSA (65 - 125) 0.0 (0-30) SW846 8081A
alpha-Chlordane 0.0 MSA (65 - 120) SW846 8081A
0.0 MSA (65 - 120) 0.0 (0-30) SW846 8081A
4,4'-DDE 0.0 MSA (70 - 125) SW846 8081A
0.0 MSA (70 - 125) 0.0 (0-30) SW846 8081A
Dieldrin 0.0 MSA (65 - 125) SW846 8081A
0.0 MSA (65 - 125) 0.0 (0-30) SW846 8081A
Endrin 0.0 MSA (60 - 135) SW846 8081A
0.0 MSA (60 - 135) 0.0 (0-30) SW846 8081A
4,4'-DDD 0.0 MSA (30 - 135) SW846 8081A
0.0 MSA (30 - 135) 0.0 (0-30) SW846 8081A
Endosulfan II 0.0 MSA (35 - 140) SW846 8081A
0.0 MSA (35 - 140) 0.0 (0-30) SW846 8081A
4,4'-DDT 0.0 MSA (45 - 140) SW846 8081A
0.0 MSA (45 - 140) 0.0 (0-30) SW846 8081A
Endrin aldehyde 0.0 MSA (35 - 145) SW846 8081A
0.0 MSA (35 - 145) 0.0 (0-30) SW846 8081A
Methoxychlor 0.0 MSA (55 - 145) SW846 8081A
0.0 MSA (55 - 145) 0.0 (0-30) SW846 8081A
Endosulfan sulfate 0.0 MSA (60 - 135) SW846 8081A
0.0 MSA (60 - 135) 0.0 (0-30) SW846 8081A
Endrin ketone 0.0 MSA (60 - 135) SW846 8081A
0.0 MSA (60 - 135) 0.0 (0-30) SW846 8081A

#### MATRIX SPIKE SAMPLE EVALUATION REPORT

#### GC Semivolatiles

	PERCENT	RECOVERY
SURROGATE	RECOVERY	LIMITS
Decachlorobiphenyl	0.0 SRD	(55 - 130)
	0.0 SRD	(55 - 130)
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)
	0.0 SRD	(70 - 125)

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MSA The recovery and RPD were not calculated because the sample was diluted beyond the ability to quantitate a recovery.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

# SOLID, 6010B, Pb only

# Client Sample ID: 782A-3-1,4-1,5-1 COMPOSITE

# TOTAL Metals

Lot-Sample #...: G6F230422-038

**Date Sampled...:** 06/22/06

Date Received..: 06/23/06

% Moisture....: 28

REPORTING PREPARATION-PARAMETER RESULT LIMIT UNITS METHOD

WORK ANALYSIS DATE ORDER #

Matrix....: SOLID

Prep Batch #...: 6187097

Lead 28.7

2.1 mg/kg Dilution Factor: 1

SW846 6010B

MDL..... 0.70

07/06-07/07/06 H75X11AD

NOTE(S):

# Client Sample ID: 782A-3-2,4-2,5-2 COMPOSITE

#### TOTAL Metals

Lot-Sample #...: G6F230422-039 Matrix....: SOLID

Date Sampled...: 06/22/06 Date Received..: 06/23/06

**% Moisture....:** 27

REPORTING PREPARATION- WORK

PARAMETER RESULT LIMIT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6187097

Lead 11.2 2.1 mg/kg SW846 6010B 07/06/06 H750K1AD

Dilution Factor: 1 MDL..... 0.68

# Client Sample ID: 780A-7-1,8-1 COMPOSITE

#### TOTAL Metals

Lot-Sample #...: G6F230422-040 Matrix....: SOLID

Date Sampled...: 06/22/06 Date Received..: 06/23/06

**% Moisture....:** 26

REPORTING PREPARATION- WORK

PARAMETER RESULT LIMIT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6187097

Lead 13.9 2.0 mg/kg SW846 6010B 07/06/06 H750L1AD

Dilution Factor: 1 MDL..... 0.68

NOTE(S):

# Client Sample ID: 780A-7-2,8-2 COMPOSITE

#### TOTAL Metals

Lot-Sample #...: G6F230422-041

Date Sampled...: 06/22/06

Matrix....: SOLID

% Moisture....: 25

Date Received..: 06/23/06

REPORTING

PREPARATION-

WORK

PARAMETER RESULT

12.2

LIMIT

Dilution Factor: 1

METHOD

ANALYSIS DATE ORDER #

Prep Batch #...: 6187097

Lead

2.0

mg/kg

UNITS

SW846 6010B

MDL..... 0.67

07/06/06

H750N1AD

NOTE(S):

#### Client Sample ID: 780A-1-1,2-1 COMPOSITE

#### TOTAL Metals

Lot-Sample #...: G6F230422-042 Matrix..... SOLID

Date Sampled...: 06/22/06 Date Received..: 06/23/06

% Moisture....: 24

REPORTING PREPARATION-WORK

PARAMETER RESULT LIMIT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6187097

Lead 17.6 mg/kg 07/06/06 2.0 SW846 6010B H750P1AD

> Dilution Factor: 1 MDL..... 0.66

#### Client Sample ID: 780A-1-2,2-2 COMPOSITE

#### TOTAL Metals

**Lot-Sample** #...: G6F230422-043 Matrix....: SOLID

Date Sampled...: 06/22/06 Date Received..: 06/23/06

**% Moisture....:** 27

REPORTING PREPARATION- WORK

PARAMETER RESULT LIMIT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6187097

Lead 10.1 2.1 mg/kg SW846 6010B 07/06/06 H750Q1AD

Dilution Factor: 1 MDL..... 0.69

NOTE(S):

#### Client Sample ID: 780A-3-1,4-1,5-1 COMPOSITE

#### TOTAL Metals

Lot-Sample #...: G6F230422-044

Date Sampled...: 06/22/06

Matrix..... SOLID

**% Moisture....:** 25

Date Received..: 06/23/06

REPORTING

Dilution Factor: 1

PREPARATION-

WORK

PARAMETER RESULT

LIMIT

METHOD

ANALYSIS DATE

ORDER #

Prep Batch #...: 6187097

33.5

2.0

mg/kg

UNITS

SW846 60103

MDL..... 0.67

07/06/06

H750R1AD

NOTE(S):

Lead

#### Client Sample ID: 780A-3-2,4-2,5-2 COMPOSITE

#### TOTAL Metals

Lot-Sample #...: G6F230422-045 Matrix....: SOLID

Date Sampled...: 06/22/06 Date Received..: 06/23/06

**% Moisture....:** 23

REPORTING PREPARATION-WORK PARAMETER RESULT

LIMIT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6187097

Lead 10.7 2.0 mg/kg 07/06/06 SW846 6010B H750TLAD

> Dilution Factor: 1 MDL..... 0.65

#### Client Sample ID: 782A-7-1,8-1 COMPOSITE

#### TOTAL Metals

**Lot-Sample** #...: G6F230422-049

Date Sampled...: 06/21/06

Matrix..... SOLID

: 06/21/06 Date Received..: 06/23/06

% Moisture....: 24

REPORTING PREPARATION- WORK

PARAMETER RESULT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6187097

Lead 4.7

2.0 mg/kg Si

SW846 6010B 07/06-07/07/06 H75001AD

Dilution Factor: 1 MDL..... 0.65

NOTE(S):

#### Client Sample ID: 782A-7-2,8-2 COMPOSITE

#### TOTAL Metals

Lot-Sample #...: G6F230422-050

Date Sampled...: 06/21/06

Matrix..... SOLID

Date Received..: 06/23/06

**% Moisture....:** 24

REPORTING

LIMIT

PREPARATION-

WORK

PARAMETER RESULT

5.4

UNITS

METHOD

ANALYSIS DATE ORDER #

Prep Batch #...: 6187097

Lead

2.0

mg/kg

SW846 6010B

07/06-07/07/06 H75011AD

Dilution Factor: 1

MDL..... 0.66

NOTE(S):

#### Client Sample ID: 782A-1-1,2-1 COMPOSITE

#### TOTAL Metals

Lot-Sample #...: G6F230422-051

Date Sampled...: 06/21/06

Date Received..: 06/23/06

Matrix..... SOLID

**% Moisture....:** 30

PARAMETER RESULT LIMIT UNITS METHOD PREPARATION- WORK

ORDER #

Prep Batch #...: 6187097

Lead 7.5 2.1 mg/kg SW846 6010B 07/06/06 H75021AD

Dilution Factor: 1 MDL..... 0.71

NOTE(S):

#### Client Sample ID: 782A-2-2,1-2 COMPOSITE

#### TOTAL Metals

Lot-Sample #...: G6F230422-052 Matrix..... SOLID

Date Sampled...: 06/21/06 Date Received..: 06/23/06

% Moisture....: 28

REPORTING PREPARATION-WORK PARAMETER RESULT

LIMIT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6187097

Lead 3.9 2.1 mg/kg SW846 6010B 07/06-07/07/06 H75031AD

Dilution Factor: 1 MDL..... 0.70

NOTE(S):

## QC DATA ASSOCIATION SUMMARY

G6F230422

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
038	SOLID	SW846 6010B		6187097	6187041
039	SOLID	SW846 6010B		6187097	6187041
040	SOLID	SW846 6010B			
				6187097	6187041
041	SOLID	SW846 6010B		6187097	6187041
042	SOLID	SW846 6010B		6187097	6187041
043	SOLID	SW846 6010B		6187097	6187041
044	SOLID	SW846 6010B		6187097	6187041
045	SOLID	SW846 6010B		6187097	6187041
046	SOLID	SW846 6010B		6187097	6187041
047	SOLID	SW846 6010B		6187097	6187041
048	SOLID	SW846 6010B		6187097	6187041
049	SOLID	SW846 6010B		6187097	6187041
050	SOLID	SW846 6010B		6187097	6187041
051	SOLID	SW846 6010B		6187097	6187041
052	SOLID	SW846 6010B		6187097	6187041
053	SOLID	SW846 6010B		6187097	6187041

#### METHOD BLANK REPORT

#### TOTAL Metals

**Client Lot #...:** G6F230422

Matrix....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample # Lead	ND	7 <b>Prep B</b> ai 1.5 ilution Facto	mg/kg	187097 SW846 6010B	07/06-07/07/06	H8PT91AA

NOTE(S):

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### TOTAL Metals

Client Lot #: G6F230422 Matrix:							
PARAMETER AMOUN	- 100100	PERCNT RECVRY METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #			
	6G060000-097 <b>Prep Bat</b>		05/05/05/05/05/05				
	*/.o mg/xg	96 SW846 6010B	07/06-07/07/06	H8PT91AC			

Dilution Factor: 1

NOTE(S):

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### TOTAL Metals

Client Lot #...: G6F230422

Matrix..... SOLID

PERCENT

RECOVERY

PREPARATION-

PARAMETER

RECOVERY

LIMITS METHOD

ANALYSIS DATE WORK ORDER #

Lead

96

(80 - 120) SW846 6010B

07/06-07/07/06 H8PT91AC

Dilution Factor: 1

NOTE(S):

#### MATRIX SPIKE SAMPLE DATA REPORT

#### TOTAL Metals

Date Sampled:		Date Receiv	<b>ed:</b> 06/23/06	Matríx	c SOL	ID
SAMPLE PARAMETER AMOUNT			PERCNT RECVRY RPD ME	ETHOD	PREPARATION - ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #:	G6F230422-038	Prep Batch	#: 6187097			
Lead				% Mois	sture: 28	
28.7 28.7	71.3 92.8 70.6 77.3 N	mg/kg mg/kg		7846 6010B 7846 6010B	07/06/06 07/06-07/07/06	H75X11AF
					, , 0 . , 0 0	

Dilution Factor: 1

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

#### MATRIX SPIKE SAMPLE EVALUATION REPORT

#### TOTAL Metals

Client Lot #...: G6F230422

Date Sampled...: 06/22/06

Date Received..: 06/23/06

Matrix....: SOLID

PERCENT

RECOVERY LIMITS

RPD

PREPARATION-

WORK

PARAMETER

RECOVERY

RPD LIMITS

METHOD

ANALYSIS DATE

ORDER #

MS Lot-Sample #: G6F230422-038 Prep Batch #...: 6187097

% Moisture....: 28

Lead

90

(80 - 120)

SW846 6010B

07/06/06

H75X11AF

69 N

(80 - 120) 18

(0-30)SW846 6010B

07/06-07/07/06 H75X11AG

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.



**STL Sacramento** 880 Riverside Parkway West Sacramento, CA 95605

Tel: 916 373 5600 Fax: 916 372 1059 www.sti-inc.com

July 29, 2006

STL SACRAMENTO PROJECT NUMBER: G6F300327 PO/CONTRACT:

(b) (6)

Parsons Corporation 1132 Bishop St. Suite 2102 Honolulu, HI 96813

Dear (b) (6)

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on June 30, 2006. These samples are associated with your 442221 project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (6) (6)

Sincerely,



Project Manager

#### TABLE OF CONTENTS

#### STL SACRAMENTO PROJECT NUMBER G6F300327

Case Narrative

STL Sacramento Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

SOLID, 8081A, Pesticides STD List

Samples: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 33, 34 Sample Data Sheets Method Blank Reports

Laboratory QC Reports

SOLID, 6010B, Pb only

Samples: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 33, 34

Sample Data Sheets Method Blank Reports Laboratory QC Reports

#### CASE NARRATIVE

#### STL SACRAMENTO PROJECT NUMBER G6F300327

#### **General Comments**

The samples were received at 2, 6 and 8 degrees C. The sample series 2795 and 2802 were received at 8 degrees C. Per your approval on July 3, 2006 these samples were analyzed. Sample 2802A-9-2 was not received, instead 2 jars labeled 2802A-9-1 were received. Per your instruction the containers were analyzed as samples 2802A-9-1A and 2802A-9-1B. Therefore these samples were not to be part of the composite series indicated on the Chain of Custody (COC). Four samples were received that were not listed on the COC-samples 2802A-12-1; 2802A-12-2; 2802A-13-1 and 2802A-13-2. Per your instruction samples 2802A-12-1 and 2802A-13-1 were composited together. Samples 2802A-12-2 and 2802A-13-2 were composited together.

#### SOLID, 8081A, Pesticides STD List

Sample(s): 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 33, 34 Aldrin and 4,4'-DDT was detected in the method blank (MB) at concentrations that are above the method detection limit but less than ½ the reporting limit. Samples with positive detections of these analytes have been B flagged to indicate this.

There were no other anomalies associated with this project.





#### STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania 🎞	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

<sup>\*</sup>NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

#### **QC Parameter Definitions**

**QC Batch**: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank**: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

# Sample Summary G6F300327

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
H8KN2	1	2802A-4-1,5-1,6-1,7-1,8-1		6/30/2006 09:25 AM
H8KPE	2	2802A-4-1,5-1,6-1,7-1,8-1 COMP	6/27/2006 12:55 PM	6/30/2006 09:25 AM
H8KPG	3	2802A-4-2,5-2,6-2,7-2,8-2	6/27/2006 12:55 PM	6/30/2006 09:25 AM
H8KPH	4	2802A-4-2,5-2,6-2,7-2,8-2 COMP	6/27/2006 12:55 PM	6/30/2006 09:25 AM
H8KPM	5	677B-3-1,4-1,5-1	6/28/2006 09:15 AM	6/30/2006 09:25 AM
H8KPP	6	677B-3-1,4-1,5-1 COMP	6/28/2006 09:15 AM	6/30/2006 09:25 AM
H8KPQ	7	677B-3-2,4-2,5-2	6/28/2006 09:15 AM	6/30/2006 09:25 AM
H8KPR	8	677B-3-2,4-2,5-2 COMP		6/30/2006 09:25 AM
H8KQD	9	677B-1-1,2-1		6/30/2006 09:25 AM
H8KQK	10	677B-1-1,2-1 COMP		6/30/2006 09:25 AM
H8KQL	11	677B-1-2,2-2		6/30/2006 09:25 AM
H8KQN	12	677B-1-2,2-2 COMP		6/30/2006 09:25 AM
H8KQR	13	677B-7-1,8-1		6/30/2006 09:25 AM
H8KQ3	14	677B-7-1,8-1 COMP		6/30/2006 09:25 AM
H8KQ5	15	677B-7-2,8-2		6/30/2006 09:25 AM
H8KQ8	16	677B-7-2,8-2 COMP		6/30/2006 09:25 AM
H8KRA	17	2795A-4-1,5-1,6-1,7-1,8-1,9-1		6/30/2006 09:25 AM
H8KRF	18	2795A-4-1,5-1,6-1,7-1,8-1,9-1 COMP		6/30/2006 09:25 AM
H8KRH	19	2795A-4-2,5-2,6-2,7-2,8-2,9-2		6/30/2006 09:25 AM
H8KRJ	20	2795A-4-2,5-2,6-2,7-2,8-2,9-2 COMP		6/30/2006 09:25 AM
H8KRN	21	2795A-12-1,13-1,14-1		6/30/2006 09:25 AM
H8KRW	22	2795A-12-1,13-1,14-1 COMP		6/30/2006 09:25 AM
H8KR0	23	2795A-12-2,13-2,14-2		6/30/2006 09:25 AM
H8KR4	24	2795A-12-2,13-2,14-2 COMP		6/30/2006 09:25 AM
H8KR6	25	2795A-1-1,2-1,3-1		6/30/2006 09:25 AM
H8KTE	26	2795A-1-1,2-1,3-1 COMP		6/30/2006 09:25 AM
H8KTF	27	2795A-1-2,2-2,3-2		6/30/2006 09:25 AM
H8KTK	28	2795A-1-2,2-2,3-2 COMP		6/30/2006 09:25 AM
H8KTM	29	2802A-12-1,13-1		6/30/2006 09:25 AM
H8KVD	30	2802A-12-1,13-1 COMP		6/30/2006 09:25 AM
H8KVE	31	2802A-12-2,13-2		6/30/2006 09:25 AM
H8KVF	32	2802A-12-2,13-2 COMP		6/30/2006 09:25 AM
H8KVG	33	2802A-9-1A		6/30/2006 09:25 AM
H8KVQ	34	2802A-9-1B	6/27/2006 02:05 PM	6/30/2006 09:25 AM

#### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

Return to Client

ESN Dispose @ \$2.00/sample or

SEALS INTACT Y / N / NA

RECEIVED TEMP:

Comments

composite

Como

4 of 63

RELINGUISHED & L.(Signature)

SAMPLE DISPOSAL INSTRUCTIONS:

CHAIN-OF-CUSTODY RECORD

CLIENT: Parsous TAT (circle one): 24-hr. 48-hr. 5-day or Other: STD ADDRESS: 1132 Bishop s+ # 2102 DATE: 6-29-06 PAGE 5 OF 6 PHONE: 808 748 7576 FAX: 808 748 75 75 ESN PROJECT #: LOCATION/PROJECT NAME: Camp smith camp store 6.28.06 COLLECTOR: BM/KB DATE COLLECTED: 6.29.06 CLIENT PROJECT #: 442221 Project Manager: Total: Pb Cd Cr As Hg or TCLP 1010 FlashPoint RCRA 8 Metals 8015 TPH-Oil Container Type 8021b BTEX 8082 PCB 8100 PAH 8270 PAH 8081 Pest. Sample Comments Type Sample ID# Depth Time 1 6778-1-1 1.0 0905 Composite 2 6778-2-1 1.0 0933 2-0 0905 3 6778-1-2 2-0 6933 4 6778-2-2 1.0 0840 0850 6 6778-8-20 6840 2.0 0850 comp 1.0 0935 1.0 0950 1.0 0957 1-0 1010 Como 1-0 1017 1.0 1030 142795A-9-1 20 0935 120 10950 2.0 0as7 17 2795A-6-2 18 2795A-7-2 1.0 1010 20 1017 19 2795A-8-2 1030 20 2795A-9-2 DATE/TIME RECIEVED BY (Signa DATE/TIME SAMPLE RECEIPT: RELINQUISHED BY:(Signature) LABORATORY NOTES: 6.29.06/1500 TOTAL # OF CONTAINERS\_ RECIEVED BY (Signa DATE/TIME DATE/TIME COC SEALS Y / N / NA SEALS INTACT Y / N / NA Return to Client RECEIVED TEMP: SAMPLE DISPOSAL INSTRUCTIONS: ESN Dispose @ \$2.00/sample or



## LOT RECEIPT CHECKLIST STL Sacramento

CLIENT Parsons	PM_PP_LOG#_	3975	D
LOT# (QUANTIMS ID) $667306327$ QUOTE#_	70792 LOCA	ATION (1)	 18E
201 <sub>#</sub> (QOANTINIS ID)	1		
DATE RECEIVED 6925		Initials	Date 6-30-0
☐ AIRBORNE ☐ GOLDENSTATE ☐ UPS ☐ BAX GLOBAL ☐ STL COURIER ☐ COURIERS ON DEMA ☐ OTHER	☐ CLIENT ☐ DHL ☐ GO-GETTERS		
CUSTODY SEAL STATUS   INTACT   BROKEN   N/A			
CUSTODY SEAL #(S) NA			
SHIPPPING CONTAINER(S) ☐ STL ☐ CLIENT ☐ N/A TEMPERTURE RECORD (IN °C) IR 1☐ 3 ☐ OTH	IED		
COC #(S)	ILK		
TEMPERATURE BLANK Observed: NA Corrected: \(\lambda\)	г <del>А</del>		
SAMPLE TEMPERATURE /			
Observed: Saverage: Corrected	Average:	- 1	
COLLECTOR'S NAME:	☐ Not on COC		
ph measured Yes Anomaly	N/A		
LABELED BY			
LABELS CHECKED BY NA			
SHORT HOLD TEST NOTIFICATION SAMPLE	E RECEIVING		
WETCH	<del>7.</del>		
VOA-EN	ICORES N/A		
☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL	□N/A		
COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVE	S √N/A		
☐ Clouseau ☐ TEMPERATURE EXCEEDED (2 °C – €	6 °C)*¹ □ N/A	4	1
☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO	COOLING AGENTS US		M NOTIFIED
Notes: Red 2 Javs Lov 28	62A-9-1	- none for	<u> 9-2</u>
RACA 2862A-17-1 12-2 13-1	1, 132 not	(1340)	1 ou coc
, , , , , , , , , , , , , , , , , , , ,	/		



## MULTI COOLER RECEIPT CHECKLIST STL Sacramento

CLIENT: Parsons	_ LOT# (QUANTIMS ID):	648300327
TEMPERTURE RECORD (IN °C) IR 1□ 3 □	OTHER	INITIALS DATE
COOLER ID CUSTODY SEAL STATUS	ECTED:	
COOLER ID 2  CUSTODY SEAL STATUS INTACT BROKEN  CUSTODY SEAL #(S) COC #(S)  TEMPERATURE BLANK: OBSERVED: CORRECT  SAMPLE TEMPERATURE:  OBSERVED: 9 8 AVERAGE: 8 CORP  SAMPLES / TESTS (IF NCM REQUIRED): 2795  776	CTED:	
COOLER ID	RRECTED: 7	

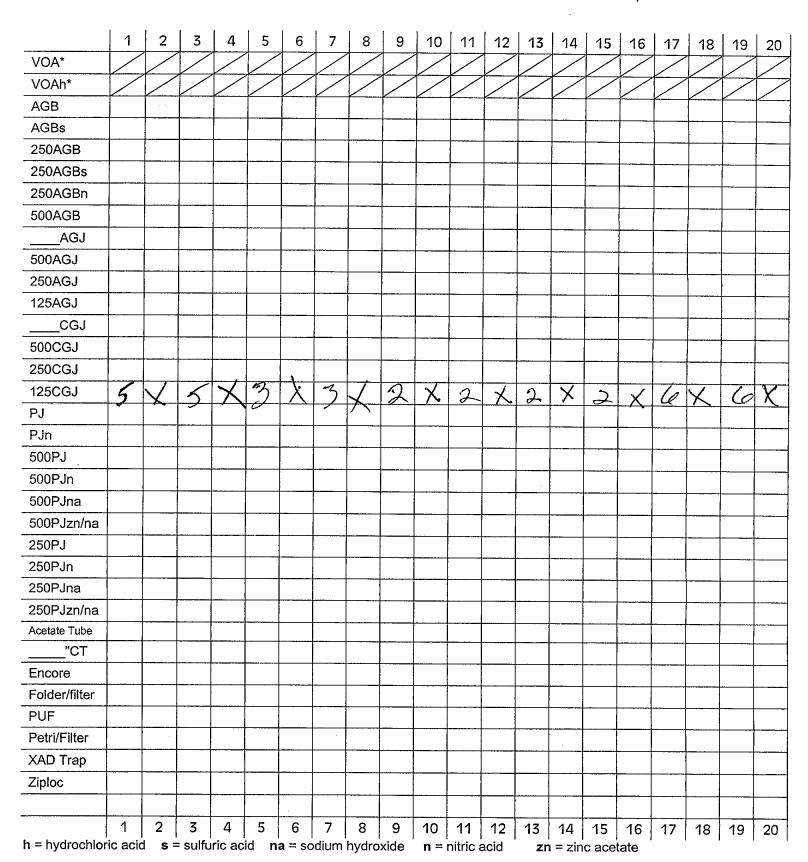
LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE. INITIAL AND DATE ALL "N/A" ENTRIES.

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## **Bottle Lot Inventory**

Lot [6450092]



Number of VOAs with air bubbles present / total number of VOA's

QA-185 3/05 EM

Page 2



Lot ID:

Bottle Lot Inventory

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
VOA*																				
VOAh*																				
AGB				ſ																
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
CGJ				ļ <del></del>								-								
500CGJ																				
250CGJ																				
125CGJ	3	X	3	<b>V</b>	3	X	3	V	1	X	2	V	1	T						
PJ		<b>`</b>			-/	_		<b></b>		/ \	0	/	- 15	1						
PJn																				
500PJ																				
500PJn														~ · · · · · · · · · · · · · · · · · · ·						
500PJna														-						
500PJzn/na									<del></del>								i			
250PJ																				
250PJn																				
250PJna							··													
250PJzn/na	<u> </u>																·	<u> </u>		
Acetate Tube																				
"CT																				
Encore																				
Folder/filter																-				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc	<u> </u>																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

h = hydrochloric acid s = sulfuric acid na = sodium hydroxide **zn** = zinc acetate n = nitric acid

Number of VOAs with air bubbles present / total number of VOA's

QA-185 3/05 EM

Page 3

# SOLID, 8081A, Pesticides STD List

#### Client Sample ID: 677B-3-1,4-1,5-1 COMP

#### GC Semivolatiles

Lot-Sample #: G6F300327-006		Matrix SOLID
Date Sampled: 06/28/06	Date Received: 06/30/06	
Prep Date: 07/11/06	Analysis Date: 07/22/06	
Prep Batch #: 6192249		
Dilution Factor: 20		

Method.....: SW846 8081A

REPORTING  $\mathtt{MDL}$ RESULT LIMIT UNITS PARAMETER 3.1 45 ug/kg alpha-BHC ND3.4 ug/kg 45 ND gamma-BHC (Lindane) ug/kg 4.3 45 ND Heptachlor 3.0 ug/kg 45 12 J,B Aldrin 3.1 45 ug/kg ND beta-BHC 45 ug/kg 1.7 ND delta-BHC ug/kg 2.8 45 ND Heptachlor epoxide 4.5 45 ug/kg ND Endosulfan I 4.1 45 ug/kg gamma-Chlordane ND ug/kg 5.6 ND 45 alpha-Chlordane 6.6 89 ug/kg ND 4,4'-DDE ug/kg 5.9 89 620 Dieldrin 7.7 ug/kg ND 89 Endrin 6.9 89 ug/kg ND 4,4'-DDD ug/kg 8.1 ND 89 Endosulfan II 3.4 89 ug/kg 11 J,B 4,4'-DDT 4.5 89 ug/kg NDEndrin aldehyde 33 ug/kg 450 Methoxychlor ND 5.7 89 ug/kg Endosulfan sulfate ND6.2 89 ug/kg ND Endrin ketone 560 ND 1800 ug/kg Toxaphene RECOVERY PERCENT LIMITS SURROGATE RECOVERY Decachlorobiphenyl 0.0 SRD (55 - 130)0.0 SRD (70 - 125)Tetrachloro-m-xylene

#### NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

% Moisture....: 24

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

#### Client Sample ID: 677B-3-2,4-2,5-2 COMP

#### GC Semivolatiles

Lot-Sample #...: G6F300327-008 Work Order #...: H8KPR1AA Matrix....: SOLID

 Date Sampled...:
 06/28/06
 Date Received...
 06/30/06

 Prep Date.....:
 07/11/06
 Analysis Date...
 07/22/06

Prep Batch #...: 6192249

Dilution Factor: 10

% Moisture....: 25 Method.....: SW846 8081A

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	23	ug/kg	1.6
gamma-BHC (Lindane)	ND	23	ug/kg	1.7
Heptachlor	ND	23	ug/kg	2.2
Aldrin	ND	23	ug/kg	1.5
beta-BHC	ND	23	ug/kg	1.6
delta-BHC	ND	23	ug/kg	0.88
Heptachlor epoxide	ND	23	ug/kg	1.4
Endosulfan I	ND	23	ug/kg	2.3
gamma-Chlordane	ND	23	ug/kg	2.1
alpha-Chlordane	ND	23	ug/kg	2.8
4,4'-DDE	19 J	45	ug/kg	3.4
Dieldrin	180	45	ug/kg	3.0
Endrin	ND	45	ug/kg	3.9
4,4'-DDD	5.9 J	45	ug/kg	3.5
Endosulfan II	ND	45	ug/kg	4.1
4,4'-DDT	29 J,B	45	ug/kg	1.7
Endrin aldehyde	ND	45	ug/kg	2.3
Methoxychlor	ND	230	ug/kg	17
Endosulfan sulfate	ND	45	ug/kg	2.9
Endrin ketone	ND	45	ug/kg	3.1
Toxaphene	ND	900	ug/kg	290
	PERCENT	RECOVERY	Z	
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	0.0 SRD	(55 - 13	30)	
Tetrachloro-m-xylene	0.0 SRD	(70 - 12	25)	

#### NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

#### Client Sample ID: 677B-1-1,2-1 COMP

#### GC Semivolatiles

Lot-Sample #...: G6F300327-010 Work Order #...: H8KQK1AA Matrix.....: SOLID

Prep Batch #...: 6192249

Dilution Factor: 5

**% Moisture....:** 17 **Method.....:** SW846 8081A

		REPORTIN	r <del>G</del>	
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	10	ug/kg	0.70
gamma-BHC (Lindane)	ND	10	ug/kg	0.77
Heptachlor	ND	10	ug/kg	0.99
Aldrin	ND	10	ug/kg	0.68
beta-BHC	ND	10	ug/kg	0.70
delta-BHC	ND	10	ug/kg	0.39
Heptachlor epoxide	ND	10	ug/kg	0.63
Endosulfan I	ND	10	ug/kg	1.0
gamma-Chlordane	2.7 J	10	ug/kg	0.93
alpha-Chlordane	1.6 J	10	ug/kg	1.3
4,4'-DDE	75	20	ug/kg	1.5
Dieldrin	ND	20	ug/kg	1.3
Endrin	ND	20	ug/kg	1.8
4,4'-DDD	6.2 J	20	ug/kg	1.6
Endosulfan II	ND	20	ug/kg	1.8
4,4'-DDT	320 B	20	ug/kg	0.78
Endrin aldehyde	ND	20	ug/kg	1.0
Methoxychlor	ND	100	ug/kg	7.5
Endosulfan sulfate	ND	20	ug/kg	1.3
Endrin ketone	ND	20	ug/kg	1.4
Toxaphene	ND	400	ug/kg	130
<del>-</del> ,				
	PERCENT	RECOVERY	Z	
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	0.0 SRD	(55 - 13	30)	
Tetrachloro-m-xylene	0.0 SRD	(70 - 12	25)	

#### NOTE(S)

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

#### Client Sample ID: 677B-1-2,2-2 COMP

#### GC Semivolatiles

Lot-Sample #...: G6F300327-012 Work Order #...: H8KQN1AA Matrix.....: SOLID

Prep Batch #...: 6192249

Dilution Factor: 1

**% Moisture....:** 22 **Method.....:** SW846 8081A

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	2.2	ug/kg	0.15
gamma-BHC (Lindane)	ND	2.2	ug/kg	0.17
Heptachlor	ND	2.2	ug/kg	0.21
Aldrin	0.39 J,B	2.2	ug/kg	0.15
beta-BHC	ND	2.2	ug/kg	0.15
delta-BHC	ND	2.2	ug/kg	0.084
Heptachlor epoxide	ND	2.2	ug/kg	0.14
Endosulfan I	ND	2.2	ug/kg	0.22
gamma-Chlordane	1.0 J	2.2	ug/kg	0.20
alpha-Chlordane	0.60 J	2.2	ug/kg	0.27
4,4'-DDE	28	4.4	ug/kg	0.32
Dieldrin	0.46 J	4.4	ug/kg	0.29
Endrin	ND	4.4	ug/kg	0.38
4,4'-DDD	1.4 J	4.4	ug/kg	0.34
Endosulfan II	ND	4.4	ug/kg	0.40
4,4'-DDT	61 B	4.4	ug/kg	0.17
Endrin aldehyde	ND	4.4	ug/kg	0.22
Methoxychlor	ND	22	ug/kg	1.6
Endosulfan sulfate	ND	4.4	ug/kg	0.28
Endrin ketone	ND	4.4	ug/kg	0.30
Toxaphene	ND	86	ug/kg	27
-				
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS	-	
Decachlorobiphenyl	89	(55 - 130)		
Tetrachloro-m-xylene	81	(70 - 125)		

#### NOTE (S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

### Client Sample ID: 677B-7-1,8-1 COMP

#### GC Semivolatiles

Lot-Sample #: G6F300327-014 Date Sampled: 06/28/06 Prep Date: 07/11/06 Prep Batch #: 6192249	Work Order #: H8KQ31AA Date Received: 06/30/06 Analysis Date: 07/23/06	Matrix SOLID
Dilution Factor: 200 % Moisture: 16	Method: SW846 8081A	

		REPORTIN	G	
PARAMETER	RESULT	LIMIT	UNITS	MDL
alpha-BHC	ND	410	ug/kg	28
gamma-BHC (Lindane)	ND	410	ug/kg	31
Heptachlor	ND	410	ug/kg	39
Aldrin	5600 B	410	ug/kg	27
beta-BHC	ND	410	ug/kg	28
delta-BHC	ND	410	ug/kg	16
Heptachlor epoxide	ND	410	ug/kg	25
Endosulfan I	ND	410	ug/kg	41
gamma-Chlordane	ND	410	ug/kg	37
alpha-Chlordane	ND	410	ug/kg	51
4,4'-DDE	ND	810	ug/kg	60
Dieldrin	11000	810	ug/kg	54
Endrin	ND	810	ug/kg	70
4,4'-DDD	ND	810	ug/kg	63
Endosulfan II	ND	810	ug/kg	74
4,4'-DDT	ND	810	ug/kg	31
Endrin aldehyde	ND	810	ug/kg	41
Methoxychlor	ND	4100	ug/kg	300
Endosulfan sulfate	ND	810	ug/kg	52
Endrin ketone	350 J	810	ug/kg	56
Toxaphene	ND	16000	ug/kg	5100
	PERCENT	RECOVERY	7	
CYTER ACT ME	RECOVERY	LIMITS	-	
SURROGATE	0.0 SRD	(55 - 13	30)	
Decachlorobiphenyl	0.0 SRD 0.0 SRD	(70 - 12		
Tetrachloro-m-xylene	עאַט ט.ט	(/0 - 12	, J	

#### NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than RL.

#### Client Sample ID: 677B-7-2,8-2 COMP

#### GC Semivolatiles

Lot-Sample #...: G6F300327-016 Work Order #...: H8KQ81AA Matrix....: SOLID

 Date Sampled...:
 06/28/06
 Date Received...:
 06/30/06

 Prep Date.....:
 07/11/06
 Analysis Date...:
 07/23/06

**Prep Batch #...:** 6192249

Dilution Factor: 200

**% Moisture....:** 24 **Method.....:** SW846 8081A

#### REPORTING $\mathtt{MDL}$ RESULT LIMIT UNITS PARAMETER 450 uq/kg 31 NDalpha-BHC 34 450 ug/kg gamma-BHC (Lindane) ND43 450 ug/kg ND Heptachlor 450 ug/kg 30 550 B Aldrin 31 450 ug/kg beta-BHC ND 17 ND 450 ug/kg delta-BHC 450 ug/kg 28 ND Heptachlor epoxide 450 ug/kg 45 Endosulfan I ND41 450 ug/kg gamma-Chlordane ND 56 ND 450 ug/kg alpha-Chlordane 890 ug/kg 66 ND4,4'-DDE ug/kg 59 5500 890 Dieldrin 77 890 ug/kg ND Endrin ug/kg 69 ND 890 4,4'-DDD ug/kg 81 Endosulfan II ND 890 34 ND 890 ug/kg 4,4'-DDT 45 ND 890 ug/kg Endrin aldehyde ug/kg 330 4500 ND Methoxychlor 57 890 ug/kg Endosulfan sulfate ND 62 Endrin ketone 240 J 890 ug/kg ND 18000 ug/kg 5600 Toxaphene PERCENT RECOVERY RECOVERY LIMITS SURROGATE (55 - 130)Decachlorobiphenyl 0.0 SRD 0.0 SRD (70 - 125)Tetrachloro-m-xylene

#### NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than RL.

## QC DATA ASSOCIATION SUMMARY

G6F300327

Sample Preparation and Analysis Control Numbers

		ANALYTICAL	LEACH	PREP	
SAMPLE#	MATRIX	METHOD	BATCH #	BATCH #	MS RUN#
002	SOLID	ASTM D 2216-90		6186274	6186176
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
004	SOLID	ASTM D 2216-90		6186274	6186176
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
006	SOLID	ASTM D 2216-90		6186274	6186176
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
008	SOLID	ASTM D 2216-90		6186274	6186176
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
010	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
012	SOLID	ASTM D 2216-90		6186275	6186177
012	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
07.4	SOLID	ASTM D 2216-90		6186275	6186177
014	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
	201110	2W040 0010D		019900.	V-2-3-2-0
016	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
018	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
020	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
022	SOLID	ASTM D 2216-90		6186275	6186177
~ = <b>=</b>	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206

(Continued on next page)

## QC DATA ASSOCIATION SUMMARY

G6F300327

Sample Preparation and Analysis Control Numbers

		ANALYTICAL	LEACH	PREP	
SAMPLE#	MATRIX	METHOD	BATCH #	BATCH #	MS RUN#
024	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
026	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
028	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
030	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
032	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
033	SOLID	ASTM D 2216-90		6207238	6207173
• • •	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
034	SOLID	ASTM D 2216-90		6207238	6207173
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206

#### METHOD BLANK REPORT

#### GC Semivolatiles

Client Lot #...: G6F300327 Work Order #...: H80NA1AA Matrix.....: SOLID

REPORTING

MB Lot-Sample #: G6G110000-249

Prep Date...: 07/11/06
Analysis Date..: 07/21/06
Prep Batch #...: 6192249

Dilution Factor: 1

		TIEL OILE E.		
PARAMETER	RESULT	LIMIT	UNITS	METHOD
alpha-BHC	ND	1.7	ug/kg	SW846 8081A
gamma-BHC (Lindane)	ND	1.7	ug/kg	SW846 8081A
Heptachlor	ND	1.7	ug/kg	SW846 8081A
Aldrin	0.26 J	1.7	ug/kg	SW846 8081A
beta-BHC	ND	1.7	ug/kg	SW846 8081A
delta-BHC	ND	1.7	ug/kg	SW846 8081A
Heptachlor epoxide	ND	1.7	ug/kg	SW846 8081A
Endosulfan I	ND	1.7	ug/kg	SW846 8081A
gamma-Chlordane	ND	1.7	ug/kg	SW846 8081A
alpha-Chlordane	ND	1.7	ug/kg	SW846 8081A
4,4'-DDE	ND	3.4	ug/kg	SW846 8081A
Dieldrin	ND	3.4	ug/kg	SW846 8081A
Endrin	ND	3.4	ug/kg	SW846 8081A
4,4'-DDD	ND	3.4	ug/kg	SW846 8081A
Endosulfan II	ND	3.4	ug/kg	SW846 8081A
4,4'-DDT	0.90 J	3.4	ug/kg	SW846 8081A
Endrin aldehyde	ND	3.4	ug/kg	SW846 8081A
Methoxychlor	ND	17	ug/kg	SW846 8081A
Endosulfan sulfate	ND	3.4	ug/kg	SW846 8081A
Endrin ketone	ND	3.4	ug/kg	SW846 8081A
Toxaphene	ND	67	ug/kg	SW846 8081A
	PERCENT	RECOVER	Y	
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	94	(55 - 1	30)	
Tetrachloro-m-xylene	88	(70 - 12	•	
		,	,	

#### NOTE(S):

J Estimated result. Result is less than RL.

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: G6F300327 Work Order #...: H80NA1AC Matrix.....: SOLID

LCS Lot-Sample#: G6G110000-249

Prep Date....: 07/11/06 Analysis Date..: 07/21/06

Prep Batch #...: 6192249

Dilution Factor: 1

	PERCENT	RECOVERY	
PARAMETER	RECOVERY	LIMITS	METHOD
alpha-BHC	97	(60 - 125)	SW846 8081A
gamma-BHC (Lindane)	91	(60 - 125)	SW846 8081A
Heptachlor	98	(50 - 140)	SW846 8081A
Aldrin	86	(45 - 140)	SW846 8081A
beta-BHC	103	(60 - 125)	SW846 8081A
delta-BHC	100	(55 - 130)	SW846 8081A
Heptachlor epoxide	92	(65 - 130)	SW846 8081A
Endosulfan I	93	(15 - 135)	SW846 8081A
gamma-Chlordane	94	(65 - 125)	SW846 8081A
alpha-Chlordane	95	(65 - 120)	SW846 8081A
4,4'-DDE	99	(70 - 125)	SW846 8081A
Dieldrin	96	(65 - 125)	SW846 8081A
Endrin	103	(60 - 135)	SW846 8081A
4,4'-DDD	102	(30 - 135)	SW846 8081A
Endosulfan II	107	(35 - 140)	SW846 8081A
4,4'-DDT	110	(45 - 140)	SW846 8081A
Endrin aldehyde	73	(35 - 145)	SW846 8081A
Methoxychlor	106	(55 - 145)	SW846 8081A
Endosulfan sulfate	110	<b>(60 - 135)</b>	SW846 8081A
Endrin ketone	107	<b>(60 - 1</b> 35)	SW846 8081A
		PERCENT	RECOVERY
SURROGATE		RECOVERY	LIMITS
Decachlorobiphenyl		94	(55 - 130)
Tetrachloro-m-xylene		83	(70 - 125)

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: G6F300327 Work Order #...: H80NA1AC Matrix.....: SOLID

LCS Lot-Sample#: G6G110000-249

Prep Date....: 07/11/06 Analysis Date..: 07/21/06

Prep Batch #...: 6192249

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
alpha-BHC	8.33	8.05	ug/kg	97	SW846 8081A
gamma-BHC (Lindane)	8.33	7.59	ug/kg	91	SW846 8081A
Heptachlor	8.33	8.15	ug/kg	98	SW846 8081A
Aldrin	8.33	7.20	ug/kg	86	SW846 8081A
beta-BHC	8.33	8.61	ug/kg	103	SW846 8081A
delta-BHC	8.33	8.29	ug/kg	100	SW846 8081A
Heptachlor epoxide	8.33	7.62	ug/kg	92	SW846 8081A
Endosulfan I	8.33	7.73	ug/kg	93	SW846 8081A
gamma-Chlordane	8.33	7.85	ug/kg	94	SW846 8081A
alpha-Chlordane	8.33	7.95	ug/kg	95	SW846 8081A
4,4'-DDE	16.7	16.5	ug/kg	99	SW846 8081A
Dieldrin	16.7	16.1	ug/kg	96	SW846 8081A
Endrin	16.7	17.2	ug/kg	103	SW846 8081A
4,4'-DDD	16.7	17.0	ug/kg	102	SW846 8081A
Endosulfan II	16.7	17.9	ug/kg	107	SW846 8081A
4,4'-DDT	16.7	18.4	ug/kg	110	SW846 8081A
Endrin aldehyde	16.7	12.2	ug/kg	73	SW846 8081A
Methoxychlor	83.3	88.3	ug/kg	106	SW846 8081A
Endosulfan sulfate	16.7	18.4	ug/kg	110	SW846 8081A
Endrin ketone	16.7	17.9	ug/kg	107	SW846 8081A
		D-12 C1111M	DEGOMEDA		
		PERCENT	RECOVERY		
SURROGATE		RECOVERY	LIMITS	<del>_</del>	
Decachlorobiphenyl		94	(55 - 130	•	
Tetrachloro-m-xylene		83	(70 - 125	)	

# NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

#### MATRIX SPIKE SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: G6F300327 Work Order #...: H8KRJ1AE-MS Matrix.....: SOLID

**MS Lot-Sample #:** G6F300327-020 H8KRJ1AF-MSD

Date Sampled...: 06/29/06 Date Received..: 06/30/06 Prep Date....: 07/11/06 Analysis Date..: 07/22/06

Prep Batch #...: 6192249

Dilution Factor: 1 % Moisture....: 21

	PERCENT	RECOVERY		RPD	
PARAMETER	RECOVERY	LIMITS	RPD	LIMITS	METHOD
alpha-BHC	86	(60 - 125)			SW846 8081A
	84	(60 - 125)	3.1	(0-30)	SW846 8081A
gamma-BHC (Lindane)	84	(60 - 125)			SW846 8081A
<b>3</b>	84	(60 - 125)	0.51	(0-30)	SW846 8081A
Heptachlor	92	(50 - 140)			SW846 8081A
	91	(50 - 140)	0.94	(0-30)	SW846 8081A
Aldrin	83	(45 - 140)			SW846 8081A
	81	(45 - 140)	2.8	(0-30)	SW846 8081A
beta-BHC	100	(60 - 125)			SW846 8081A
	101	(60 - 125)	0.99	(0-30)	SW846 8081A
delta-BHC	93	(55 - 130)			SW846 8081A
	92	(55 - 130)	0.47	(0-30)	SW846 8081A
Heptachlor epoxide	86	(65 - 130)			SW846 8081A
	85	(65 - 130)	0.60	(0-30)	SW846 8081A
Endosulfan I	85	(15 - 135)			SW846 8081A
	84	(15 - 135)	1.6	(0-30)	SW846 8081A
gamma-Chlordane	87	(65 - 125)			SW846 8081A
	87	(65 - 125)	0.50	(0-30)	SW846 8081A
alpha-Chlordane	89	(65 - 120)			SW846 8081A
	88	(65 - 120)	0.13	(0-30)	SW846 8081A
4,4'-DDE	92	(70 - 125)			SW846 8081A
	90	(70 - 125)	1.6	(0-30)	SW846 8081A
Dieldrin	88	(65 - 125)			SW846 8081A
	85	(65 - 125)	3.5	(0-30)	SW846 8081A
Endrin	100	(60 - 135)			SW846 8081A
	98	(60 - 135)	1.8	(0-30)	SW846 8081A
4,4'-DDD	96	(30 - 135)			SW846 8081A
	94	(30 - 135)	2.6	(0-30)	SW846 8081A
Endosulfan II	96	(35 - 140)			SW846 8081A
	93	(35 - 140)	3.0	(0-30)	SW846 8081A
4,4'-DDT	89	(45 - 140)			SW846 8081A
	85	(45 - 140)	4.3	(0-30)	SW846 8081A
Endrin aldehyde	<b>7</b> 1	(35 - 145)			SW846 8081A
	71	(35 - 145)	0.62	(0-30)	SW846 8081A
Methoxychlor	97	(55 - 145)			SW846 8081A
	95	(55 - 145)	2.0	(0-30)	SW846 8081A
Endosulfan sulfate	101	(60 - 135)			SW846 8081A
	99	(60 - 135)	2.3	(0-30)	SW846 8081A
Endrin ketone	101	(60 - 135)			SW846 8081A
	93	(60 - 135)	8.0	(0-30)	SW846 8081A

(Continued on next page)

#### MATRIX SPIKE SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: G6F300327 Work Order #...: H8KRJ1AE-MS

Matrix....: SOLID

MS Lot-Sample #: G6F300327-020

H8KRJ1AF-MSD

	PERCENT	RECOVERY LIMITS	
SURROGATE	RECOVERY		
Decachlorobiphenyl	82	(55 - 130)	
<u> </u>	78	(55 - 130)	
Tetrachloro-m-xylene	73	(70 - 125)	
-	70	(70 - 125)	

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

#### MATRIX SPIKE SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: G6F300327 Work Order #...: H8KRJ1AE-MS Matrix..... SOLID

MS Lot-Sample #: G6F300327-020 H8KRJ1AF-MSD

Prep Batch #...: 6192249

	SAMPLE	SPIKE	MEASRD		PERCNT		
PARAMETER	AMOUNT	AMT	TUUOMA	UNITS	RECVRY	RPD	METHOD
alpha-BHC	ND	10.6	9.16	ug/kg	86	,	SW846 8081A
• •	ND	10.6	8.88	ug/kg	84	3.1	SW846 8081A
gamma-BHC (Lindane)	ND	10.6	8.91	ug/kg	84		SW846 8081A
3	ND	10.6	8.86	ug/kg	84	0.51	SW846 8081A
Heptachlor	ND	10.6	9.71	ug/kg	92		SW846 8081A
-	ND	10.6	9.62	ug/kg	91	0.94	SW846 8081A
Aldrin	0.41	10.6	9.24	ug/kg	83		SW846 8081A
	0.41	10.6	8.99	ug/kg	81	2.8	SW846 8081A
beta-BHC	ND	10.6	10.6	ug/kg	100		SW846 8081A
	ND	10.6	10.7	ug/kg	101	0.99	SW846 8081A
delta-BHC	ND	10.6	9.80	ug/kg	93		SW846 8081A
	ND	10.6	9.76	ug/kg	92	0.47	SW846 8081A
Heptachlor epoxide	ND	10.6	9.09	ug/kg	86		SW846 8081A
_	ND	10.6	9.03	ug/kg	85	0.60	SW846 8081A
Endosulfan I	ND	10.6	9.00	ug/kg	85		SW846 8081A
	ND	10.6	8.86	ug/kg	84	1.6	SW846 8081A
gamma-Chlordane	ND	10.6	9.21	ug/kg	87		SW846 8081A
	ND	10.6	9.26	ug/kg	87	0.50	SW846 8081A
alpha-Chlordane	ND	10.6	9.39	ug/kg	89		SW846 8081A
-	ND	10.6	9.37	ug/kg	88	0.13	SW846 8081A
4,4'-DDE	ND	21.2	19.5	ug/kg	92		SW846 8081A
·	ND	21.2	19.2	ug/kg	90	1.6	SW846 8081A
Dieldrin	0.90	21.2	19.7	ug/kg	88		SW846 8081A
	0.90	21.2	19.0	ug/kg	85	3.5	SW846 8081A
Endrin	ND	21.2	21.2	ug/kg	100		SW846 8081A
	ND	21.2	20.8	ug/kg	98	1.8	SW846 8081A
4,4'-DDD	ND	21.2	20.4	ug/kg	96		SW846 8081A
	ND	21.2	19.9	ug/kg	94	2.6	SW846 8081A
Endosulfan II	ND	21.2	20.4	ug/kg	96		SW846 8081A
	ND	21.2	19.8	ug/kg	93	3.0	SW846 8081A
4,4'-DDT	2.8	21.2	21.6	ug/kg	89		SW846 8081A
	2.8	21.2	20.7	ug/kg	85	4.3	SW846 8081A
Endrin aldehyde	ND	21.2	15.0	ug/kg	71		SW846 8081A
	ND	21.2	15.1	ug/kg	71	0.62	SW846 8081A
Methoxychlor	MD	106	102	ug/kg	97		SW846 8081A
_	ND	106	100	ug/kg	95	2.0	SW846 8081A
Endosulfan sulfate	ND	21.2	21.4	ug/kg	101		SW846 8081A
	ND	21.2	21.0	ug/kg	99	2.3	SW846 8081A
Endrin ketone	ND	21.2	21.5	ug/kg	101		SW846 8081A
	ND	21.2	19.9	ug/kg	93	8.0	SW846 8081A

(Continued on next page)

#### MATRIX SPIKE SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: G6F300327 Work Order #...: H8KRJ1AE-MS Matrix.....: SOLID

MS Lot-Sample #: G6F300327-020 H8KRJ1AF-MSD

	PERCENT	RECOVERY LIMITS	
SURROGATE	RECOVERY		
Decachlorobiphenyl	82	(55 - 130)	
	78	(55 - 130)	
Tetrachloro-m-xylene	73	(70 - 125)	
•	70	(70 - 125)	

# NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# SOLID, 6010B, Pb only

# Client Sample ID: 677B-3-1,4-1,5-1 COMP

#### TOTAL Metals

Matrix..... SOLID Lot-Sample #...: G6F300327-006

Date Received..: 06/30/06 Date Sampled...: 06/28/06

**% Moisture....:** 24

REPORTING PREPARATION-WORK

ANALYSIS DATE ORDER # PARAMETER RESULT LIMIT UNITS METHOD

**Prep Batch #...:** 6199307

07/18-07/20/06 H8KPP1AD SW846 6010B mg/kg Lead 10.4 2.0

> MDL..... 0.66 Dilution Factor: 1

NOTE(S):

# Client Sample ID: 677B-3-2,4-2,5-2 COMP

#### TOTAL Metals

Lot-Sample #...: G6F300327-008 Matrix....: SOLID

**% Moisture....:** 25

REPORTING PREPARATION- WORK

PARAMETER RESULT UNITS METHOD ANALYSIS DATE ORDER #

ANALISIS DATE ORDER A

Prep Batch #...: 6199307

Lead 14.3 2.0 mg/kg SW846 6010B 07/18-07/20/06 H8KPR1AD

Dilution Factor: 1 MDL........... 0.67

NOTE(S):

# Client Sample ID: 677B-1-1,2-1 COMP

#### TOTAL Metals

Matrix....: SOLID Lot-Sample #...: G6F300327-010

Date Received..: 06/30/06 Date Sampled...: 06/28/06

% Moisture....: 17

PREPARATION-WORK REPORTING METHOD ANALYSIS DATE ORDER #

PARAMETER RESULT LIMIT UNITS

Prep Batch #...: 6199307

07/18-07/20/06 H8KQKLAD mg/kg SW846 6010B Lead 17.3 1.8

> Dilution Factor: 1 MDL..... 0.60

NOTE(S):

# Client Sample ID: 677B-1-2,2-2 COMP

#### TOTAL Metals

Lot-Sample #...: G6F300327-012 Matrix....: SOLID

**% Moisture....:** 22

REPORTING PREPARATION- WORK

PARAMETER RESULT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6199307

Lead 17.4 1.9 mg/kg SW846 6010B 07/18-07/20/06 H8KQN1AD

Dilution Factor: 1 MDL..... 0.64

NOTE(S):

# Client Sample ID: 677B-7-1,8-1 COMP

#### TOTAL Metals

Lot-Sample #...: G6F300327-014 Matrix....: SOLID

**% Moisture....:** 16

REPORTING PREPARATION- WORK

PARAMETER RESULT UNITS METHOD ANALYSIS DATE ORDER #

**Prep Batch #...:** 6199307

Lead 4.8 1.8 mg/kg SW846 6010B 07/18-07/20/06 H8KQ31AD

Dilution Factor: 1 MDL..... 0.60

NOTE(S):

# Client Sample ID: 677B-7-2,8-2 COMP

#### TOTAL Metals

Lot-Sample #...: G6F300327-016 Matrix..... SOLID

Date Sampled...: 06/28/06 Date Received..: 06/30/06

**% Moisture....:** 24 REPORTING WORK PREPARATION-PARAMETER RESULT LIMIT UNITS METHOD ANALYSIS DATE ORDER # Prep Batch #...: 6199307 Lead 18.3 mg/kg SW846 6010B 2.0 07/18-07/20/06 H8KQ81AD Dilution Factor: 1 MDL..... 0.66

NOTE(S):

# QC DATA ASSOCIATION SUMMARY

#### G6F300327

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH	PREP	MG DIMIH
DAMPLIE#	MAIRIA	METHOD	BATCH #	BATCH #	MS RUN#
002	SOLID	SW846 6010B		6199307	6199206
004	SOLID	SW846 6010B		6199307	6199206
006	SOLID	SW846 6010B		6199307	6199206
800	SOLID	SW846 6010B		6199307	6199206
010	SOLID	SW846 6010B		6199307	6199206
012	SOLID	SW846 6010B		6199307	6199206
014	SOLID	SW846 6010B		6199307	6199206
016	SOLID	SW846 6010B		6199307	6199206
018	SOLID	SW846 6010B		6199307	6199206
020	SOLID	SW846 6010B		6199307	6199206
022	SOLID	SW846 6010B		6199307	6199206
024	SOLID	SW846 6010B		6199307	6199206
026	SOLID	SW846 6010B		6199307	6199206
028	SOLID	SW846 6010B		6199307	6199206
030	SOLID	SW846 6010B		6199307	6199206
032	SOLID	SW846 6010B		6199307	6199206
033	SOLID	SW846 6010B		6199307	6199206
034	SOLID	SW846 6010B		6199307	6199206

#### METHOD BLANK REPORT

#### TOTAL Metals

**Client Lot #...:** G6F300327 Matrix..... SOLID REPORTING PREPARATION-WORK PARAMETER RESULT LIMIT UNITS METHOD ANALYSIS DATE ORDER # MB Lot-Sample #: G6G180000-307 Prep Batch #...: 6199307 Lead ND 1.5 mg/kg SW846 6010B 07/18-07/20/06 H9F2D1AA Dilution Factor: 1 NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### TOTAL Metals

Client Lot #...: G6F300327 Matrix....: SOLID

PERCENT RECOVERY PREPARATION-

PARAMETER RECOVERY LIMITS METHOD ANALYSIS DATE WORK ORDER #

LCS Lot-Sample#: G6G180000-307 Prep Batch #...: 6199307

Lead 96 (80 - 120) SW846 6010B 07/18-07/20/06 H9F2D1AC

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

# LABORATORY CONTROL SAMPLE DATA REPORT

#### TOTAL Metals

Client Lot #: G6F300327						Matrix:	SOLID
PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION - ANALYSIS DATE	WORK ORDER #
LCS Lot-Samp	<b>le#:</b> G60	<b>3180000-3</b> 0	7 Prep Bat	ch #	: 6199307		
Lead		48.0		96	SW846 6010B	07/18-07/20/06	H9F2D1AC
		D	ilution Factor	:: 1			
NOTE(S):							

Calculations are performed before rounding to avoid round-off errors in calculated results.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

#### TOTAL Metals

Client Lot # Date Sampled			eceived: 06/30/06	Matrix SOLID
PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS RPD	RPD LIMITS METHOD	PREPARATION- WORK ANALYSIS DATE ORDER #
MS Lot-Sampl	l <b>e #:</b> G6F30	00327-002 Prep Ba	atch #: 6199307	<b>% Moisture:</b> 19
Lead	112 90	(80 - 120) (80 - 120) 16 Dilution Fact	SW846 6010 (0-30) SW846 6010 or: 1	
NOTE(S):				· · · · · · · · · · · · · · · · · · ·

Calculations are performed before rounding to avoid round-off errors in calculated results.

# MATRIX SPIKE SAMPLE DATA REPORT

#### TOTAL Metals

Client Lot #: Date Sampled:		Date Received	l: 06/30/06	Matrix.	: SOLI	D
SAMPLE PARAMETER AMOUNT	<del>-</del>		PERCNT RECVRY RPD METHOD			WORK ORDER #
MS Lot-Sample #:	G6F300327-002	Prep Batch #.	: 6199307	% Moist	<b>ure:</b> 19	
Lead 21.9 21.9	61.6 91.1 61.6 77.3		SW846 00 16 SW846		7/18-07/20/06 7/18-07/20/06	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.